

RPGOBJECTS PRESENTS:

# BLOOD AND SPACE



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## D20 STARSHIP ADVENTURE TOOLKIT

BY

CHARLES RICE AND CHRIS DAVIS

**Lead Designer:** Charles Rice  
**Additional Design:** Chris Davis  
**Science Guru:** Chris Nicholson  
**Editor:** Chris Davis  
**Proof Reader:** Donald Kiesling  
**Cover Art:** Scott Clark  
**Interior Art:** V. Shane  
**Layout:** Chris Davis

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# CHAPTER 1: INTRODUCTION

Admiral Antilles held tight onto the arms of his command chair as the *Repulse* bucked from the impact of another Torpedo. Several crew members, standing at tactical consoles were tossed to the floor by the force of the weapon, even though it had in fact missed the massive System Defense Craft. Over his shoulder, he could barely hear his First Officer yelling over the din of the automated fire suppression system, "Proximity Torps? Where are they getting these weapons? Those things are supposed to be manufactured for military use only?"

Antilles didn't answer, eyes scanning the various consoles around the wreck that used to be his bridge, noting the positions of the various fighters swarming around their two mistresses like gnats around elephants in the summer sun. Suddenly, a grim smile split his weathered face. He knew.

"Helm! Hard about! Engines, emergency power to the thrusters!"

Another crewman went flying across the smoking bridge, uniform briefly catching fire as the enormous craft turned on a dime. It wasn't the first time an enemy had mistaken the size of the *Repulse* to mean it was clumsy. There on the viewscreen, as the craft pitched, was the pirate carrier slinking up behind for a shot on their engines. Three small "Executioner" class fighters flying in front to keep the *Repulse's* complement of fighters at bay.

"Full Speed Ahead."

The massive ship lurched forward, the viewscreen going black in a shower of sparks as the *Repulse* simply ran right through the fighters, destroying all three outright, the tiny craft breaking apart like flies hitting the windshield of a speeding car. Antilles looked down, referring to the ship's radar screen to mark the relative positions of his craft and the enormous Gallows-Class pirate carrier across from it.

"Wait... wait... fire main antiproton batteries... NOW! Helm! Hard about, lateral yaw! Give us some distance!"

Suddenly, the ship lurched again, a terrible rending sound, then the bucking of an explosion. They had nicked the massive pirate ship, and been too close as its main engines blew. The massive craft was listing on its side, floating gently through the void.

Around the two craft, one, the *Repulse* damaged almost beyond repair, and one a wreck of molten metal and charred humanity, in the silence of space, the battle raged on, as the *Repulse's* fighter squadron made sure the pirate

fighter wouldn't be able to finish what their mother ship had started.

At the helm now, the Admiral righted the huge vessel. The tactical display showed the enemy fighters break into a full retreat when they saw that the massive carrier was not destroyed as theirs had been.

Speaking over his shoulder to Captain Armstrong, his first officer, the Admiral spoke very quietly. "Recall the fighter Captain. Damage control crews to the bridge, engineering, and the lateral thrusters. And Captain... we are going to find out where those scum got those proximity fuses."

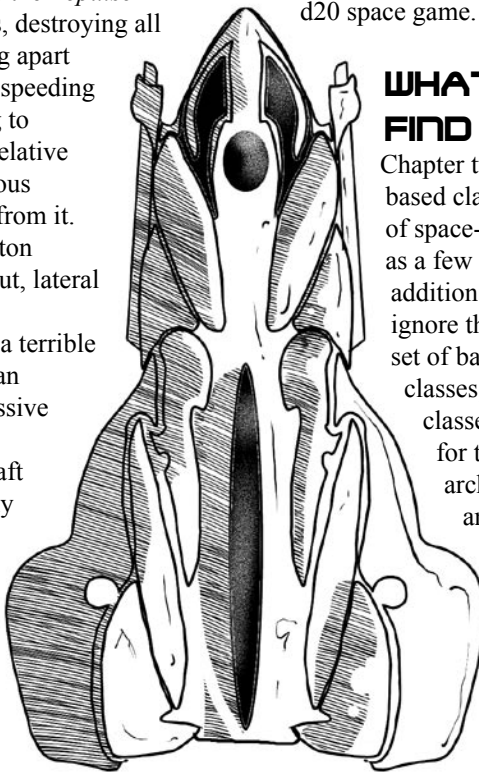
## WHAT IS BLOOD AND SPACE?

Welcome to *Blood and Space*, a space adventure sourcebook for the d20 system. Not a complete game in and of itself, *Blood and Space* strives to provide players and game masters with a toolkit to supplement any science fiction campaign (or create a new one), with a special focus on starship combat and adventure. Within this toolkit you will find some new core d20 components such as base classes, skills, feats, and personal equipment. Also included in *Blood and Space* are extensive rules for constructing starships, playing crews, and a complete tactical space combat system. The rules that follow are presented ala carte, and game masters will want to choose which elements fit best into the theme of their particular d20 space game.

## WHAT YOU WILL FIND IN THIS BOOK

Chapter two begins with a selection of space-based classes. Many of the core archetypes of space-based settings are presented as well as a few variants. You can use these classes in addition to the ones in your game or simply ignore them if they clash with your current set of base classes. In addition to the base classes, this chapter has a collection of prestige classes. The prestige classes are designed for two purposes: to represent advanced archetypes of the genre (Pirate Captain) and to represent specialists at some of the starship combat situations presented later in *Blood and Space* (Starship Commander).

Chapter three presents a plethora of new skills and feats. These give you starship related options, such as merchant skills, computer skills, starship maneuver feats, and an entire



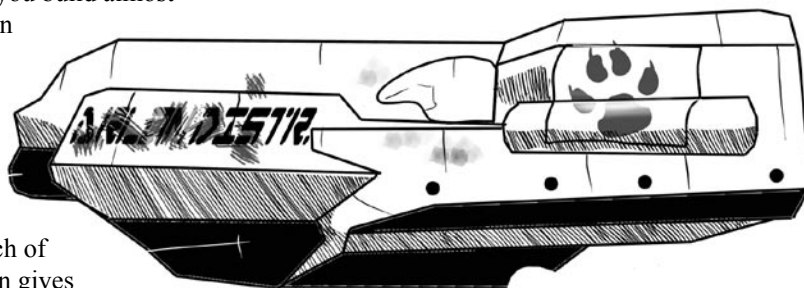
selection of item creation feats that let you build almost every piece of technology to be found in this book. Several of the skills present in this book are variations of skills present in d20 Modern.

Equipment you ask? Your wait ends with Chapter four. This chapter begins with the starting money received by a first level character in each of the new classes presented here, and then gives you some options to increase that starting cache of wealth through feats, skills, and pure unadulterated glibness (that's charisma). Following this enlightenment, we come to guns. I know you were wondering about guns. I know if you're a GM, the first thing your players were asking you when you brought the book out was "There are guns in there right?", well have no fear. *Blood and Space* does indeed present ways for you to kill things and take their stuff. Following the guns is a wide variety of futuristic armor you'll want to peruse, since that killing things game is only fun when you play it on someone else. Chapter Four ends with a discussion of trade, an important element in any starship based campaign.

Chapter Five brings us to the heart and soul of *Blood and Space*, the Starships. Now Starships are expensive pieces of equipment, so this chapter begins with a discussion about the various ways to pay for one, from financing it, to working for a Hauling company, to Indentured Servitude, to buying it used. Following this, we turn to Starship Construction. *Blood and Space* does not just present a selection of pre-fabricated ships; it shows you how to build a starship from the ground up. Choose your Hull, from the smallest fighter to the most palatial station, install a Stardrive, bolt some weapons and armor on, and then decide what you're going to do with all that cargo space. Are you going to leave it empty so you can fill your ship with exotic alien spices to sell for a tidy profit back home? Or do you want to expand the options of your ship, installing labs and sick bays for a long voyage of discovery and diplomacy. Chapter Five puts the tools in your hands, and lets you decide what your ship will be.

Now that you know how to build a ship, chapter six outlines how to develop one of the most important elements of any starship: its crew. This chapter gives you all the tools you need to play enormous capital starships with hundreds of crewmen. Each crew type has *Orders* it can be given, allowing a few characters to organize and control a vast ship they could never fly alone. Helm, Engineering, Marines, Science, all have an important role in assuring their ship runs (and fights) smoothly. And for those times when you can't talk your way out of trouble, this Chapter also gives you a crew combat system, allowing you to board and seize enemy vessels with your Marines.

Now that you have that ship and its crew, you are wondering how it would do under pressure. Chapter seven, Space Combat, lets you find out. This is an



extensive chapter on tactical space combat and presents a wide variety of rules and options. In addition to the core mechanics for ship-to-ship combat, chapter seven includes a comprehensive offering of natural hazards and terrain features to add an extra element of flavor to any tactical battle.

## GENRE TAGS

Various rules in this *Blood and Space* are more appropriate for some forms of science fiction space campaigns than others. For purposes of these rules, the myriad types of themes have been broken down into broad categories: hard sci-fi and space opera. In general, hard sci-fi attempts to obey the laws of physics. Game mechanics in this genre will endeavor to have some sense of realism. Conversely, space opera treats science fiction as an adventure genre. Spacecraft in this genre act like earth bound fighter jets or even sailing ships, not unlike starships in some of the more fantastic science fiction films, television shows, and novels. When a rule is most appropriate for one genre, it will be "tagged" with the appropriate genre: (*Hard Sci-Fi*) or (*Space Opera*). In the body of the rule's description, the effect of this rule in a differing genre may also be discussed. With the great variety of science fiction space themes in existence, players should check with their GM before utilizing any rule with a genre tag. Some GMs will want to stick closely to one genre or another, while others might prefer to mix and match. In science fantasy, where magic or psionics exist side by side with science, this is especially true, as the existence of these supernatural forces might allow characters to violate the laws of physics, where they would normally be bound by them.

## WHICH CORE BOOKS?

*Blood and Space* is a d20 sourcebook and requires the use of the core rulebooks published by Wizards of the Coast®. You can use either the PHB or d20 Modern® as your core rulebook. *Blood and Space* will work with both. Some of the skills and feats in this book are variations of skills presented in d20 Modern®, but space based versions of those skills and feats have been included using the content from the d20 Modern system reference document.



## CHAPTER 2: CLASSES

Damage Control officer Sarita Zeleznik picked her way through the corridor, stepping over fallen support beams, even the occasional body, as she made her way to the Admiral's Mess, where she had been told Admiral Antilles had retired to collect his thoughts after the battle. Along the way she gave direction to the crews she encountered, not breaking stride as she hurried to this unexpected summons. This was only her third tour on the *Repulse*, and she felt she was still finding her way as Damage Control Chief, learning her personnel and the intricacies of one of the largest, most advanced ships in the United Sol Fleet. She tried to quiet the butterflies in her stomach as she knocked. She hadn't done anything wrong that she was aware of, but the repairs were taking...

"Come in Lieutenant."

Sarita opened the door, managing not to cough at the thick pipe smoke filling the small, nicely decorated mess where the Admiral and his senior staff took their meals. She had only been here once before, for her 'Welcome' dinner to the crew. Looking over reports on his data pad, the Admiral gestured to the silver pot in the center of the table, "Have some coffee Lieutenant, it's going to be a long night for all of us".

Sarita hesitated for just a moment, and then decided it wasn't a request and made herself a cup. Secretly, she just wanted to get this over with. Whatever she had done wrong, he could put the reprimand in her folder, transfer her, whatever it was he did in these situations, and she would be on her way. But apparently, he was the "diplomatic" sort of commander.

Sitting down, the young woman sipped her coffee, wrinkling her nose. She hated coffee.

Finally, the Admiral signed whatever order was on his data pad and tucked the light pen back into his uniform jacket, took a deep breath, and looked up, "Lieutenant Zeleznik, I regret to inform you that Chief Engineer Trineer did not survive the battle".

Sarita almost choked on her coffee. Casualties were slowly being announced to the crew by the medical staff, but the Chief hadn't been on the last list...

"We didn't want to announce anything to the crew until a decision had been made on his replacement."

Sarita frowned, that wasn't standard procedure at all, "Replacement?", she asked, brow furrowing, trying to wrap her mind around this unexpected turn of events.

The Admiral nodded, "We're not going back to headquarters. Colonel Breslin is questioning the captured pilots even as we speak. As soon as these repairs are done, we're heading for their base. We're going to end this ragtag group of thugs once and for all."

Sarita nodded, still not comfortable with this violation of protocol. The regulations clearly stated a ship was to put in after any engagement where a senior officer was killed and...

"Ensign Carstares is going to head the repair teams. You will report to the engine room and see to it that the main Quicksilver drive is ready in no more than six hours."

Sarita frowned again, "Ensign Carstares is on his first tour, he can't handle the..."

"This isn't a discussion Lieutenant. You are hereby promoted to Lieutenant Commander and appointed acting Chief Engineer. Now get down there and get my engines working! We had a temporal spike during the battle, find it and fix it."

Sarita opened her mouth to say something several times, but no sound ever came out.

"Dismissed, Commander."

Sarita got up and left. Pausing outside the door, she braced herself against the bulkhead, numb. She was going to throw up.

"Chief Engineer?"

Exhaling a breath she had been holding since the Admiral said those words, she shook her head and started off at a dead run for the engine room, her mind racing, "A temporal spike could only mean one thing, the lateral slipstream..."

## DOCTOR

The Doctor is one of three scientific specialties available to players in *Blood and Space*. The Doctor is a specialist in life sciences and nearly as valuable as Engineers. Life and death situations are common on the frontiers of space. Without access to competent medical personnel, space exploration can be a fleeting career. Therefore, doctors are an invaluable and highly respected member of any crew or organization. Most doctors are ethical and honorable. Their only goal is to preserve life, and protect the members of their crew from the hazards of space travel. However, there are also rogue doctors, who travel to the Stars to conduct research that would not be tolerated by law-abiding societies. Cloning, Exo-Genetic Grafting, and even more bizarre experiments have been uncovered. In the future, medicine has a dark underbelly, one inhabited by those brave enough to answer the questions "ethical" doctors are afraid to ask.

### GAME RULE INFORMATION

Doctors have the following game statistics:

**Abilities:** Wisdom is the most important ability for Doctors, as their signature skill, Treat Injury is based on it.

**Alignment:** any

**Hit Die:** d4

### Class Skills

Doctors Class Skills are (and the key ability for each): Computer Use (Int), Craft (chemical and pharmaceutical) (Int), Diplomacy (Cha), Knowledge (exolinguistics and any science), Research (Int), Sense Motive (Wis), Treat Injury (Wis).

Skill Points at 1<sup>st</sup> Level: 6 + Int Modifier X 4

Skill Points at Each additional Level: 6 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** The Doctor is proficient in Light and Medium armor, and Simple weapons.

**Bonus Feat:** The Doctor gains a bonus feat from the following list: Advanced Training (Medical, Science), Educated, Heal Frenzy, Leadership, Linguist, Medical Expert, Panimmunity, Surgery, Teamwork (Non-Combat), Wealthy.

**Stat!:** This ability represents a concerted effort to keep a dying character alive. A character with this ability may re-roll any Treat Injury skill and may take the best result of the two rolls once per game session.

**The Brink:** This ability allows a character to lengthen the amount of time a character at -10 can be kept at the brink of death, until he can be transferred to a facility capable of *extreme measures*. For every 5 points of ability damage the character inflicts on his patient, he can keep that character at -10 for one hour, before the “Extreme Measures clock” begins ticking again. This



**TABLE 2-1: THE DOCTOR**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+0	+2	+1	Bonus Feat
2 <sup>nd</sup>	+1	+0	+0	+3	+1	
3 <sup>rd</sup>	+1	+1	+1	+3	+2	
4 <sup>th</sup>	+2	+1	+1	+4	+2	Bonus Feat
5 <sup>th</sup>	+2	+1	+1	+4	+2	Stat!
6 <sup>th</sup>	+3	+2	+2	+5	+3	
7 <sup>th</sup>	+3	+2	+2	+5	+3	
8 <sup>th</sup>	+4	+2	+2	+6	+4	Bonus Feat
9 <sup>th</sup>	+4	+3	+3	+6	+4	
10 <sup>th</sup>	+5	+3	+3	+7	+4	The Brink
11 <sup>th</sup>	+5	+3	+3	+7	+5	
12 <sup>th</sup>	+6/+1	+4	+4	+8	+5	Bonus Feat
13 <sup>th</sup>	+6/+1	+4	+4	+8	+6	
14 <sup>th</sup>	+7/+2	+4	+4	+9	+6	
15 <sup>th</sup>	+7/+2	+5	+5	+9	+6	Extreme Measures
16 <sup>th</sup>	+8/+3	+5	+5	+10	+7	Bonus Feat
17 <sup>th</sup>	+8/+3	+5	+5	+10	+7	
18 <sup>th</sup>	+9/+4	+6	+6	+11	+8	
19 <sup>th</sup>	+9/+4	+6	+6	+11	+8	
20 <sup>th</sup>	+10/+5	+6	+6	+12	+8	Bonus Feat; Beyond the Brink

represents tactics such as packing a character in ice from head to toe to preserve him (Str damage), repeated shocks to his heart to maintain a faint rhythm (Con damage), and so on.

**Extreme Measures:** At 15<sup>th</sup> level and beyond, the Doctor gains the ability to revive characters that lesser physicians would give up for dead. This ability allows a doctor to inflict temporary ability damage on his patient, in hopes of restoring him to life. For each round a character has been at -10 HP, 2 ability points are required to restore the character to life (-9 HP and Stable). This represents what Doctors call Extreme Measures. Examples include: cracking the chest in order to directly shock the heart (Constitution damage), radical skin grafts from other parts of the body to heal burn damage (Charisma damage), or muscle and ligament transplants from undamaged parts of the body to reattach an almost severed limb (Str damage). For example, if a character has been “dead” for 10 rounds, the Doctor must inflict a total of 20 points of ability damage to various statistics to restore the character to a semblance of life.

This ability may only be used in a Hospital or clinic. Ability damage is temporary and returns at a rate of 1 point per day (or double if the character gets total rest).

**Beyond the Brink:** It has been said that the skill of the surgeon is the only barrier to living forever in this age of miracles, and some surgeons subscribe to that theory. At the highest skill levels, a character adds his level to his patient’s ability scores for purposes of Extreme Measures and The Brink. In other words, if a patient has been down less than 20 rounds, the Doctor will do no actual ability damage in the course of reviving him. When combined with The Brink, this ability allows Doctors to perform amazing rescues, reviving patients dead for over a day.

## ENGINEER

The Engineer is one of three scientific specialties available to players in *Blood and Space*. The Engineer is a specialist in mechanical sciences. Engineers are not concerned with theoretical science. Many Scientists are Engineers, working on the next generation of machines and ships. Engineers are concerned with what they can build and use here and now. Engineers are the most valued member of any colony, the difference between life and death when a vital piece of equipment breaks down, and even more importantly, the person who knows how to keep all the vital systems of a colony properly maintained so that

they do not break down in the first place. Engineers are also valuable in combat, as they are skilled with a wide variety of weapons and armor due to their love of “stuff”. Starship combat is another strong suit for the Engineer, who is able to push space craft above and beyond their paper specifications due to his emphasis on what things *can* do, as opposed to what they were *designed* to do.

### GAME RULE INFORMATION

Engineers have the following game statistics:

**Abilities:** Intelligence is the most important ability score for the Engineer.

**Alignment:** any

**Hit Die:** d6

### Class Skills

Engineer Class Skills are (and the key ability for each): Craft (chemical, electronic, mechanical, and structural) (Int), Computer Use (Int), Demolitions (Int), Disable Device (Int), Knowledge (Technology) (Int), Navigation (Int), Open Lock (Dex), Pilot (Dex), Profession (Wis), Repair (Int), and Research (Int).

Skill Points at 1<sup>st</sup> Level: 6 + Int Modifier X 4

Skill Points at Each additional Level: 6 + Int Modifier





## Class Features

**Weapon and Armor Proficiencies:** The Engineer is proficient in Light and Medium Armor, and Simple and Martial Weapons

**Grace under Pressure:** Engineers know their equipment better than anyone. They know just how far to the edge they can push an engine before it blows, just how much they can overcharge a weapons system, and so forth. When manning any ship's system, an Engineer can *stress* a system +2, +1 per 5 levels. This does not count as the one time per day that system may be safely stressed. As the Engineer gains levels, he may use this ability with increasing frequency.

**Slapped Together:** Scientists call it “pure science”. What they mean is, it isn't *useful* to anyone. The Engineer is a scientific pragmatist. He quickly learns that the answer isn't any good unless you have it *now*. At 3<sup>rd</sup> level and above, the Engineer can take 20 on a class skill check, even under stress, as a Full-Round action. The effects of this ability will vary wildly, depending on the skill it's applied to, but the application will always be less complete than it would if the Engineer had the time to go over his solution a little more carefully. An engine repaired through the use of this ability won't stay that way for more than a few hours, after which it will need some serious dry-dock time. The Engineer may initially only use this ability once per day, but its frequency increases as the character goes up levels.

**Bonus Feat:** The Engineer gets a bonus feat from the following list: Advanced Training (Engineering), Armor Proficiency - Heavy, Armor Proficiency - Powered, Armor Proficiency - Orbital, Armorsmith - Personal, Armorsmith - Ship, Explosives Expert, Low-G Maneuvering, Ship to Ship Weapons, Starships, Wealthy, Weaponsmith - Personal, Weaponsmith - Ship, Zero-G Maneuvering.

**Right tool for the right job:** One of the things that make Engineers who they are is their love of toys. It might look like an obscure piece of bent metal to *you*, but to the Engineer it's a means of reaching inside his engine while its still running, without losing any of his fingers in the process. As long as he has his toolkit with him, an Engineer gains a +1 Circumstance Bonus per 5 levels to any Class Skill Check. For example, a 10th level Engineer would gain a +2 on any skill check as long as he had his personal tools with him.

**Pack Rat:** Engineers hate to throw anything away, even if the item is in terrible condition, the Engineer is convinced that he can make it useful if he only tinkers with it long enough. If the Engineer succeeds at a Repair check (DC 30), he can return any item with a Flaw of 01-50 on the Flaw Table (see the Starships chapter) to “like new” condition. If the Engineer uses his Slapped Together ability to take 20 on this roll, he can return the item to “like new” Condition for 1-6 rounds, after which the item melts into slag and is completely destroyed.

**Scavenger:** As above, except that the Engineer may now repair almost *any* Flaw. The only Flaws he cannot repair are 96-100 (Special).

TABLE 2-2: THE ENGINEER

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+0	+2	+1	Grace under Pressure 1/day
2 <sup>nd</sup>	+1	+0	+0	+3	+1	
3 <sup>rd</sup>	+1	+1	+1	+3	+2	Slapped Together 1/day
4 <sup>th</sup>	+2	+1	+1	+4	+2	Bonus Feat
5 <sup>th</sup>	+2	+1	+1	+4	+2	Right tool for the right job
6 <sup>th</sup>	+3	+2	+2	+5	+3	Slapped Together 2/day
7 <sup>th</sup>	+3	+2	+2	+5	+3	
8 <sup>th</sup>	+4	+2	+2	+6	+4	Bonus Feat
9 <sup>th</sup>	+4	+3	+3	+6	+4	Slapped Together 3/day
10 <sup>th</sup>	+5	+3	+3	+7	+4	Grace under Pressure 2/day
11 <sup>th</sup>	+5	+3	+3	+7	+5	
12 <sup>th</sup>	+6/+1	+4	+4	+8	+5	Bonus Feat; Pack Rat
13 <sup>th</sup>	+6/+1	+4	+4	+8	+6	
14 <sup>th</sup>	+7/+2	+4	+4	+9	+6	
15 <sup>th</sup>	+7/+2	+5	+5	+9	+6	Scavenger
16 <sup>th</sup>	+8/+3	+5	+5	+10	+7	Bonus Feat
17 <sup>th</sup>	+8/+3	+5	+5	+10	+7	
18 <sup>th</sup>	+9/+4	+6	+6	+11	+8	
19 <sup>th</sup>	+9/+4	+6	+6	+11	+8	
20 <sup>th</sup>	+10/+5	+6	+6	+12	+8	Bonus Feat; Grace under Pressure 3/day





## HAULERS

Haulers make their livings plying the spaceways. These characters never care to spend much time in port, because there is money to be made through motion. A Hauler will stay in port just long enough to sell his wares, and pick up any juicy rumors as to what might be needed or in short supply further along his route. These rough and tumble characters are similar to depression era farmers, making their livings as a family, isolated from the outside world. They don't usually make a lot of money, and most of what they *do* make is sunk right back into the ship that is a combination of home, workplace, and business. Typically ships have been in families for many generations, and are beaten, worn hulks that have been added onto and altered again and again.

### GAME RULE INFORMATION

Haulers have the following game statistics:

**Abilities:** Charisma is the Hauler's most important ability, because it's all about the deal. Dexterity is also important to Haulers who frequently find themselves involved in combat.

**Alignment:** any

**Hit Die:** d6

**TABLE 2-3: THE HAULER**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+0	+2	+1	Market
2 <sup>nd</sup>	+1	+0	+0	+3	+1	Ear to the Ground
3 <sup>rd</sup>	+1	+1	+1	+3	+2	Junkyard Dog +1
4 <sup>th</sup>	+2	+1	+1	+4	+2	Junk Dragger +10%
5 <sup>th</sup>	+2	+1	+1	+4	+3	New Market
6 <sup>th</sup>	+3	+2	+2	+5	+3	Junkyard Dog +2
7 <sup>th</sup>	+3	+2	+2	+5	+4	
8 <sup>th</sup>	+4	+2	+2	+6	+4	Junk Dragger +20%
9 <sup>th</sup>	+4	+3	+3	+6	+5	Junkyard Dog +3
10 <sup>th</sup>	+5	+3	+3	+7	+5	New Market
11 <sup>th</sup>	+5	+3	+3	+7	+6	Money Talks
12 <sup>th</sup>	+6/+1	+4	+4	+8	+6	Junkyard Dog +4; Starship; Junk Dragger +30%
13 <sup>th</sup>	+6/+1	+4	+4	+8	+7	
14 <sup>th</sup>	+7/+2	+4	+4	+9	+7	
15 <sup>th</sup>	+7/+2	+5	+5	+9	+8	Junkyard Dog +5; Junk Dragger +40%
16 <sup>th</sup>	+8/+3	+5	+5	+10	+8	New Market
17 <sup>th</sup>	+8/+3	+5	+5	+10	+9	
18 <sup>th</sup>	+9/+4	+6	+6	+11	+9	Junkyard Dog +6; Junk Dragger +50%
19 <sup>th</sup>	+9/+4	+6	+6	+11	+10	Distribution Network
20 <sup>th</sup>	+10/+5	+6	+6	+12	+10	Market Leverage

### Class Skills

Haulers Class Skills are (and the key ability for each): Appraise (Int), Bluff (Cha), Computer Use (Int), Diplomacy (Cha), Gather Information (Cha), Merchant (Cha), Navigation (Int), Pilot (Dex), Profession (Wis), Repair (Int), Sense Motive (Wis).

Skill Points at 1<sup>st</sup> Level: 6 + Int Modifier X 4

Skill Points at Each additional Level: 6 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** The Hauler is Proficient in Light Armor and Medium Armor, and Simple and Ship-to-Ship Weapons.

**Market:** The Hauler has wholesale/retail contacts in one particular world's marketplace. His contacts grant him a bonus of +2 to all Merchant skill checks there, including checks for final SDRs (Supply-Demand Ratio). The Hauler gains this ability at 1<sup>st</sup> level and a new Market every 5 levels.

DC	Merchant Bonus
5	+2
10	+5
15	+10
20	+12
25	+15
30	+18
35	+20

**Ear to the Ground:** This ability allows the Hauler to make a Gather Information skill check (DC 20) to find out about a short-term opportunity to make some quick cash. This gives the Hauler a one-time bonus to his Merchant skill to determine the SDR of his next sale; a roll on the table below determines the amount of this bonus. So, the Merchant might hear about a new computer system being installed at the Pluto Observatory, and the scientists need a ton of fiber optic cable \*now\* to make it happen, not in 6 months when they get their next supply run. If the PC could find a ton (or several) of fiber optic cable (requiring an adventure), he would make a killing.

The bonus a Hauler gets to the Supply-Demand roll is based on his Merchant skill check, as shown on table below.

**Junkyard Dog:** Do not try to steal from a Hauler and expect him to roll over. Most of these characters are one bad haul away from going bankrupt, and defend their cargo with a berserk fury. Beginning at 3<sup>rd</sup> level, and every three levels thereafter, the Hauler gains a +1 bonus to all attack and skill checks when defending his cargo.

**Junk Draggar:** This is a pejorative term that has been applied to Haulers for centuries, and truly no one packs cargo like a Hauler. Haulers have even been seen with freight lashed to the outside hulls of their ships, and dragging huge, cargo-filled nets behind them one after another. As a Hauler gains levels, the effective cargo

space of his ship is increased. To gain a +30% increase or above however, the character will have to sacrifice his dignity. But no one drags junk for a living to get famous, just to make money.

**Money Talks:** As the Hauler becomes more successful he will find that Mercenaries will be more willing to work for him. At 11<sup>th</sup> level and beyond the Hauler adds +2 to his leadership score when hiring mercenaries. For each "wealth" feat the Hauler has (Rich, Wealthy, Independently Wealthy) he adds an additional +1 to his Leadership score.

**Starship:** At this level the Hauler has proven herself worthy to be given a significant stake in her family business: a Starship of her very own. However, the character's family will expect a 10% cut of any money the character makes as a way of showing her appreciation.

**Distribution Network:** Distribution Costs are a large portion of any businesses expenses. By pooling resources, an influential businessman reduces these costs. This grants the Hauler a +2 SDR on *all* transactions.

**Market Leverage:** At this level, the Hauler is a titan of business, actually able to *manipulate* prices by restricting demand, engaging in monopolistic practices, and unduly exerting his influence. The character gains a +4 SDR on *all* transactions.

## HOTSHOT

The Hotshot thinks he is the universe's gift to piloting. For the most part he's correct. Hotshots tend to be short-lived, romantic characters, which are remembered much longer than they live. Hotshots are not freighter captains, nor are they interested in just getting safely from place to place. These characters seek out situations where they test their skill, always seeking to "push the outside of the envelope".

### GAME RULE INFORMATION

Hotshots have the following game statistics:

**Abilities:** Dexterity is the most important ability for Hotshots, allowing them to pull off those ridiculous piloting "stunts" they are so famous (some would say infamous) for. Intelligence is also important to Hotshots, allowing them more skill points to work on their piloting skills, and also allowing them to better repair their ships' engines after they burn them out.

**Alignment:** Any, but Hotshots mostly unlawful alignments. Hotshots are notoriously independent. They might be a part of a military organization as a test pilot or in some other area where their maverick natures would be tolerated. However, you would almost never find a hotshot as a regular member of a fighter wing, flying patrol.

**Hit Die:** d6





### Class Skills

Hotshots Class Skills are (and the key ability for each): Computer Use (Int), Navigation (Int), Pilot (Dex), Profession (Wis), Repair (Int), and Sensor Operations (Int).

Skill Points at 1<sup>st</sup> Level: 4 + Int Modifier X 4

Skill Points at Each additional Level: 4 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** The Hotshot is Proficient in Light Armor, and Simple, Martial and Ship-to-Ship Weapons

**Dogfighting:** Hotshots receive this feat for free at 1<sup>st</sup> Level, as long as they meet the prerequisites. If the character does not meet the requirements, he may gain this feat at a later level once they are met.

**The Right Stuff:** Some pilots have the right stuff and some don't. Get into a dogfight and you'll find out who is who quickly. At 2<sup>nd</sup> level the Hotshot may add his Hotshot levels to any piloting check a number of times per day.

**Starship Evasion:** At 8<sup>th</sup> level and beyond, the Hotshot may make a Reflex Save (DC is equal to the damage inflicted by the attack) to reduce any damage to his starship by ½. If the Pilot fails this Save, his craft takes full damage. The defense modifier of the starship (positive or negative) is applied to the Pilot's Reflex Save. This ability may not be used by a craft larger than medium size.

**TABLE 2-4 THE HOTSHOT**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+2	+0	+1	Dogfighting
2 <sup>nd</sup>	+1	+0	+3	+0	+1	The Right Stuff 1/day
3 <sup>rd</sup>	+2	+1	+3	+1	+2	
4 <sup>th</sup>	+3	+1	+4	+1	+2	The Right Stuff 2/day
5 <sup>th</sup>	+3	+1	+4	+1	+3	
6 <sup>th</sup>	+4	+2	+5	+2	+3	The Right Stuff 3/day
7 <sup>th</sup>	+5	+2	+5	+2	+4	
8 <sup>th</sup>	+6/+1	+2	+6	+2	+4	Starship Evasion
9 <sup>th</sup>	+6/+1	+3	+6	+3	+5	
10 <sup>th</sup>	+7/+2	+3	+7	+3	+5	The Right Stuff 4/day
11 <sup>th</sup>	+8/+3	+3	+7	+3	+6	
12 <sup>th</sup>	+9/+4	+4	+8	+4	+6	Outside of the Envelope 1/day
13 <sup>th</sup>	+9/+4	+4	+8	+4	+7	
14 <sup>th</sup>	+10/+5	+4	+9	+4	+7	Outside of the Envelope 2/day
15 <sup>th</sup>	+11/+6/+1	+5	+9	+5	+8	
16 <sup>th</sup>	+12/+7/+2	+5	+10	+5	+8	Outside of the Envelope 3/day
17 <sup>th</sup>	+12/+7/+2	+5	+10	+5	+9	
18 <sup>th</sup>	+13/+8/+3	+6	+11	+6	+9	Improved Fighter Evasion
19 <sup>th</sup>	+14/+9/+4	+6	+11	+6	+10	
20 <sup>th</sup>	+15/+10/+5	+6	+12	+6	+10	Outside of the Envelope 4/day

**Outside of the Envelope:** Hotshots love speed above all else. As a famous military strategist once intoned, “speed kills”. Hotshots live (and die) by this motto. A number of times per day, the Hotshot may add a +1 to the Acceleration of his craft for one round per every 5 levels of Hotshot.

**Improved Starship Evasion:** At 18<sup>th</sup> level and beyond, the Hotshot can make a Reflex Save (DC is equal to the damage inflicted by the attack) to reduce any damage to his starship to zero. If the Pilot fails this Save, his craft still only takes ½ damage. The Defense modifier of the starship (positive or negative) applies to this Reflex Save. This ability may not be used by a starship larger than Medium size. This ability may only be used once per round.

## MARINE

Like trade and science, conflict is one of the endeavors that has followed mankind into space, and in any conflict, the Marine stands on the front line. Although personal, face to face combat has been reduced in importance by the advances of technology, there is only one way, a way that has not changed since the dawn of man, to completely vanquish your opponent. Get on the ground. Take the fight to him.

### GAME RULE INFORMATION

Marines have the following game statistics:

**TABLE 2-5 THE MARINE**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+1	+2	+0	+0	+1	Bonus Feat
2 <sup>nd</sup>	+2	+3	+0	+0	+2	Boot
3 <sup>rd</sup>	+3	+3	+1	+1	+2	Instruction
4 <sup>th</sup>	+4	+4	+1	+1	+3	Bonus Feat
5 <sup>th</sup>	+5	+4	+1	+1	+4	Hard Bitten
6 <sup>th</sup>	+6/+1	+5	+2	+2	+4	Train to Inexperienced
7 <sup>th</sup>	+7/+2	+5	+2	+2	+5	
8 <sup>th</sup>	+8/+3	+6	+2	+2	+6	Bonus Feat
9 <sup>th</sup>	+9/+4	+6	+3	+3	+6	Train to Average
10 <sup>th</sup>	+10/+5	+7	+3	+3	+7	Inspire Bravery +2
11 <sup>th</sup>	+11/+6/+1	+7	+3	+3	+8	
12 <sup>th</sup>	+12/+7/+2	+8	+4	+4	+8	Bonus Feat
13 <sup>th</sup>	+13/+8/+3	+8	+4	+4	+9	
14 <sup>th</sup>	+14/+9/+4	+9	+4	+4	+10	
15 <sup>th</sup>	+15/+10/+5	+9	+5	+5	+10	Tough as Nails
16 <sup>th</sup>	+16/+11/+6/+1	+10	+5	+5	+11	Bonus Feat
17 <sup>th</sup>	+17/+12/+7/+2	+10	+5	+5	+12	
18 <sup>th</sup>	+18/+13/+8/+3	+11	+6	+6	+12	Train to Experienced
19 <sup>th</sup>	+19/+14/+9/+4	+11	+6	+6	+13	
20 <sup>th</sup>	+20/+15/+10/+5	+12	+6	+6	+14	Bonus Feat

**Abilities:** Dexterity is the most important ability for a Marine, since most combat takes place with ranged weapons. Strength and Constitution are important also, however, as there will be times when a Marine needs to suck it up and grind it out.

**Alignment:** any

**Hit Die:** d10

### Class Skills

Marine Class Skills are (and the key ability for each): Boarding (Dex), Climb (Str), Computer Use (Int), Demolitions (Int), Intimidate (Cha), Jump (Str), Profession (Wis), Tactics (Int).

Skill Points at 1<sup>st</sup> Level: 2 + Int Modifier X 4

Skill Points at Each additional Level: 2 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** The Marine is proficient in Light, Medium, and Heavy Armor, and Simple and Martial Weapons

**Bonus Feats:** The Marine gains a bonus feat from the following list: Advanced Training (Helm, Marine, Medical, Tactical), Armor Proficiency (Orbital, Powered), Blind Fight, Combat Reflexes, Exotic Weapon Proficiency, Low-G Maneuvering, Point Blank Shot (Far Shot, Precise Shot, Rapid Shot, Shot on the Run), Leadership, Low-G Maneuvering, Quick Draw, Tactician (Any), Teamwork, Toughness, Weapon Finesse, Weapon Focus, Zero-G Maneuvering.

**Boot:** Marines are the masters of the “crash course”.





They can train crew up to Green status in only a few days. This ability also allows the marine to train non-marine crew, allowing them to engage in combat as if the crew were a Green Crew (note that Legendary Engineering crew are still Raw if they must be thrown into battle).

**Hard Bitten:** Marine are tough and they impart this on units they command. Any Units commanded by a character at this level ignore the first morale hit that they suffer in combat.

**Instruction:** These characters specialize in crew training and drill procedures. The quality of a crew can have more impact on its success in battle than its officers. This character may train crew, granting that crew a number of experience points equal to his charisma modifier each week to a maximum crew quality of green. See the Starship Crews section for more information on crew qualities and their affects on starship combat.

As the character gains levels, he can train crew faster. This will be listing in the class table. A character with Instruction +1 will grant one additional experience point per week of training. In addition to training faster, the character can also train a crew to higher levels of quality. This will also be listed in the respective class table.

Training a crew takes all the characters time and focus. If training is interrupted mid week, no experience is gained.

**Inspire Bravery:** In the heat of battle, Marines are inspired by this character's personal bravery. Anytime this character joins a Marine unit in battle, it gains a +2 on all crew contests. This modifier increases as the character advances in level.

**Tough as Nails:** This ability allows any Marine Units commanded by the character to ignore their first two morale hits.

**Semper Fi:** Marines of this level that lead units into battle inspire such loyalty in their troop that units under their command are immune to Morale Hits.

## MERCENARY

Mercenaries are professional Marines who fight not for loyalty, or duty, or even for adventures. These hard-bitten warriors are motivated by only one thing: money. In lawless regions of the universe, Mercenaries can be found supplementing local militias and space fleets. Most Mercenaries prefer this work as a source of ready cash, but Mercenaries will also occasionally be seen finding their own employment, as pirates, criminals, and leg-breaking thugs.

### GAME RULE INFORMATION

Mercenaries have the following game statistics:

**Abilities:** Dexterity is the Mercenary's most important ability, since it makes him a better pilot, marksman, and boarder.

**Alignment:** any; some Mercenaries are quite honorable and fulfill their contracts to the letter, while others simply take the money and do only what they are \*forced\* to do.

**Hit Die:** d10

### Class Skills

Mercenaries Class Skills are (and the key ability for each): Appraise (Int), Bluff (Cha), Boarding (Dex), Climb (Str), Computer Use (Int), Disable Device (Dex), Gather Information (Cha), Hide (Dex), Intimidate (Cha), Jump (Str), Move Silently (Dex), Open Locks (Dex), Swim (Str), Tactics (Int).

Skill Points at 1<sup>st</sup> Level: 4 + Int Modifier X 4

Skill Points at Each additional Level: 4 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** Light, Medium, and Heavy Armor, Simple and Martial Weapons.

**Show me the money:** Any time a mercenary is working for pay, or with the chance of a significant profit from an adventure, he gains +2 to all attack and skill checks.

**Rage:** When a Mercenary fights, he fights to win. Mercenary temporarily gains +4 to Strength, +4 to

Constitution, and a +2 morale bonus on Will saves, but suffers a -2 penalty to AC.

The increase in Constitution increases the Mercenary's hit points by 2 points per level, but these hit points go away at the end of the rage when the Constitution score drops back to normal. While raging, a Mercenary cannot use skills or abilities that require patience and concentration. (The Mercenary can't use the following class skills while he is raging: Appraise, Bluff, Computer Use, Gather Information, Disable Device, Hide, Move Silently and Open Locks.) He can use any feat he might have except for Expertise, item creation feats, and Skill Focus (if it's tied to a skill that requires patience or concentration).

A fit of rage lasts for a number of rounds equal to 3 + the character's (newly improved) Constitution modifier. The Mercenary may prematurely end the rage voluntarily. At the end of the rage, the Mercenary is fatigued (-2 to Strength, -2 to Dexterity, can't charge or run) for the duration of that encounter (unless the Mercenary is 20th level, when this limitation no longer applies). The Mercenary can only fly into a rage once per encounter, and only a certain number of times per day (determined by level). Entering a rage takes no time itself, but the Mercenary can only do it during his action.

Starting at 15th level, the Mercenary's rage bonuses become +6 to Strength, +6 to Constitution, and a +3 morale bonus to Will saves. (The AC penalty remains at -2.)



**TABLE 2-6: THE MERCENARY**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+1	+0	+2	+0	+1	Show me the money
2 <sup>nd</sup>	+2	+0	+3	+0	+2	Rage 1/day
3 <sup>rd</sup>	+3	+1	+3	+1	+2	
4 <sup>th</sup>	+4	+1	+4	+1	+3	
5 <sup>th</sup>	+5	+1	+4	+1	+4	Tough Customer
6 <sup>th</sup>	+6/+1	+2	+5	+2	+4	
7 <sup>th</sup>	+7/+2	+2	+5	+2	+5	
8 <sup>th</sup>	+8/+3	+2	+6	+2	+6	Rage 2/day
9 <sup>th</sup>	+9/+4	+3	+6	+3	+6	
10 <sup>th</sup>	+10/+5	+3	+7	+3	+7	
11 <sup>th</sup>	+11/+6/+1	+3	+7	+3	+8	
12 <sup>th</sup>	+12/+7/+2	+4	+8	+4	+8	Rage 3/day
13 <sup>th</sup>	+13/+8/+3	+4	+8	+4	+9	Manhandle
14 <sup>th</sup>	+14/+9/+4	+4	+9	+4	+10	
15 <sup>th</sup>	+15/+10/+5	+5	+9	+5	+10	
16 <sup>th</sup>	+16/+11/+6/+1	+5	+10	+5	+11	Rage 4/day
17 <sup>th</sup>	+17/+12/+7/+2	+5	+10	+5	+12	Icewater for blood
18 <sup>th</sup>	+18/+13/+8/+3	+6	+11	+6	+12	
19 <sup>th</sup>	+19/+14/+9/+4	+6	+11	+6	+13	
20 <sup>th</sup>	+20/+15/+10/+5	+6	+12	+6	+14	Soldier of Fortune



**Tough Customer:** Mercenaries make their living by projecting a tough image, both to get more work, and also to make their frequent jobs as bodyguards, bouncers, and security easier. On a successful Intimidation check (DC 10+ the level of his opponent), a Mercenary can make anyone of less than half his level *shaken*. The effect lasts for 1 round per Intimidation skill rank. This ability is a move equivalent action.

**Manhandle:** Mercenaries learn that when they are in melee combat, they need to put their man down quickly. This ability allows a mercenary to add one and a half times his Strength modifier to the damage of a one handed weapon, and two times his Strength bonus to the damage of a two-handed weapon.

**Icewater for blood:** As Tough Customer, except this ability also allows a mercenary to make anyone of less than one-fourth his level *panicked*. The effect lasts for 1 round per Intimidation skill rank.

**Soldier of Fortune:** The character has become a legend among his own kind. When dealing with other mercenaries, the character gains a +6 on all Charisma based skills. If the character has the leadership feat, he gains +2 to his leadership score when recruiting mercenary followers and cohorts. For every Level of the 'Rich' feat the character possesses, he gains an additional +1 to his Leadership score.

## SCIENTIST

The Scientist is one of three scientific specialties available to players in *Blood and Space*. The Scientist is a specialist in "pure" science. Many people's reason for being in space in the first place is scientific study. There are ancient abandoned alien cities on the moons for archeologists to explore, with eerie mummies to dissect and bizarre languages to decipher. There are primitive life forms to monitor, and enormous storms to observe. If you're a scientist, space is where you want to be, not filling out grant forms back on Earth.

### GAME RULE INFORMATION

Scientists have the following game statistics:

**Abilities:** The Scientist relies on his mind above all else. Intelligence is his most important ability.

**Alignment:** any

**Hit Die:** d6

### Class Skills

Scientist Class Skills are (and the key ability for each): Craft (any) (Int), Communication Operations (Int), Computer Use (Int), Decipher Script (Int), Knowledge (any science and technology) (Int), Navigation (Int), Profession (Wis), Research (Int), Sensor Operations (Int), Speak Language (Int).

Skill Points at 1<sup>st</sup> Level: 8 + Int Modifier X 4

Skill Points at Each additional Level: 8 + Int Modifier

**TABLE 2-7: THE SCIENTIST**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+0	+2	+1	Bonus Feat
2 <sup>nd</sup>	+1	+0	+0	+3	+1	
3 <sup>rd</sup>	+1	+1	+1	+3	+2	Scientific Method 1/day
4 <sup>th</sup>	+2	+1	+1	+4	+2	Bonus Feat
5 <sup>th</sup>	+2	+1	+1	+4	+2	
6 <sup>th</sup>	+3	+2	+2	+5	+3	Scientific Method 2/day
7 <sup>th</sup>	+3	+2	+2	+5	+3	
8 <sup>th</sup>	+4	+2	+2	+6	+4	Bonus Feat
9 <sup>th</sup>	+4	+3	+3	+6	+4	Scientific Method 3/day
10 <sup>th</sup>	+5	+3	+3	+7	+4	
11 <sup>th</sup>	+5	+3	+3	+7	+5	
12 <sup>th</sup>	+6/+1	+4	+4	+8	+5	Bonus Feat; Hypothesis 1/week
13 <sup>th</sup>	+6/+1	+4	+4	+8	+6	
14 <sup>th</sup>	+7/+2	+4	+4	+9	+6	
15 <sup>th</sup>	+7/+2	+5	+5	+9	+6	Cutting Edge
16 <sup>th</sup>	+8/+3	+5	+5	+10	+7	Bonus Feat
17 <sup>th</sup>	+8/+3	+5	+5	+10	+7	
18 <sup>th</sup>	+9/+4	+6	+6	+11	+8	
19 <sup>th</sup>	+9/+4	+6	+6	+11	+8	Hypothesis 2/week
20 <sup>th</sup>	+10/+5	+6	+6	+12	+8	Bonus Feat

### Class Features

**Weapon and Armor Proficiencies:** The Scientist is proficient in Light Armor and Simple Weapons.

**Bonus Feat:** The Scientist gains a bonus feat from the following list: Advanced Training (Medical, Science), Armorsmith - Personal, Armorsmith - Ship, Builder, Educated, Explosives Expert, Low-G Maneuvering, Linguist, Starships, Rich, Teamwork - Non-combat, Wealthy, Weaponsmith - Personal, Weaponsmith - Ship, Zero-G Maneuvering.

**Scientific Method:** The Scientist is extremely disciplined in his application of science. He investigates every avenue, every possibility, wrinkling his nose in distaste at the “slapped together” credo of the Engineer. This ability allows the Scientist to roll any Knowledge skill check twice and take the result of his choice.

**Hypothesis:** Very advanced Scientists are renowned for their ability to make “educated guesses” in a flash of inspiration. This ability can provide the character with a useful theory in reply to a question concerning a specific goal, event, or activity that is to occur within 1 week. In all cases, the GM controls what information the character receives. The base chance for a correct hypothesis is 70% + 1% per Scientist level. If the dice roll fails, the character knows the ability has failed.

**Cutting Edge:** The Scientist comes across many odd bits and pieces during his travels. At 15<sup>th</sup> level he receives a piece of advanced technology not normally available. Perhaps a government lab has given the character an experimental palm held Exo-DNA mapper to field test. Or perhaps the character has come across a piece of alien technology in some ruins. The finding of this item should entail an adventure. If the item was given to the character by a laboratory, they should ask for something in return (fly a ship into Jupiter’s Red Storm and use your Exo-DNA mapper to scan for microscopic alien life forms).

## SMUGGLER

Some things are universal. People will always want to buy things governments tell them are illegal. Smugglers are Haulers of a sort, but Haulers who deal in the gray twilight of space, dealing in illegal spices, outlawed weapons, even slaves. If there’s a market for it, a smuggler will get it, and find a way to sneak it through customs.



### GAME RULE INFORMATION

Smugglers have the following game statistics:

**Abilities:** Smugglers need Charisma to talk their way out of trouble, or Dexterity to fly their way out of it.

**Alignment:** any non-Lawful

**Hit Die:** d6

### Class Skills

Smuggler Class Skills are (and the key ability for each): Appraise (Int), Bluff (Cha), Computer Use (Int), Disable Device (Int), Forgery (Int), Gather Information (Cha), Merchant (Cha), Navigation (Int), Open Lock (Dex), Pilot (Dex), Profession (Wis), Repair (Int), Search (Int), Sense Motive (Wis), Sensor Operations (Int).

Skill Points at 1<sup>st</sup> Level: 8 + Int Modifier X 4

Skill Points at Each additional Level: 8 + Int Modifier

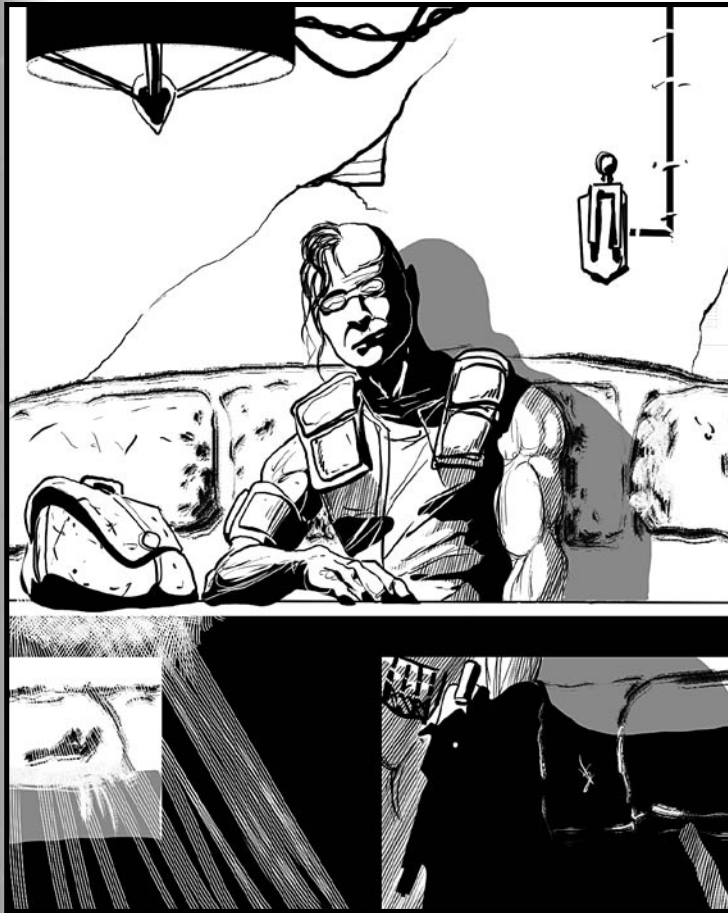
### Class Features

**Weapon and Armor Proficiencies:** The Smuggler is proficient with Light and Medium Armor, Simple and Ship-to-Ship Weapons

**Black Market:** The character gains +2 SDR to his Merchant check for the sale of any illegal goods.

**Blockade Runner:** Smugglers are excellent at avoid Fighter Interdiction. If Fighters are set up to Interdict ships coming into an area (see the Crew Chapter for more information on Fighter Interdiction), the Smuggler may subtract 5% per level from the chance for Interdicting





fighters to gain an attack of opportunity against him as he moves through the zone. Keep in mind that Starships or Bases in the area are also alerted to a craft's presence by Interdiction if the attack of opportunity takes place, so this allows the smuggler to avoid detection as well.

**Concealed Cargo:** Smugglers learn to conceal cargo from physical and sensor searches as a matter of profession. Smuggler ships are filled with secret compartments hidden to avoid physical detection and shielded to block sensors. Only a Search or Sensors Operations check of the listed DC will detect the hidden cargo. If this DC is over 20, only another Smuggler can find the hidden compartment.

**Evasion:** At 2nd level, a Smuggler gains evasion. If exposed to any effect that normally allows a character to attempt a Reflex saving throw for half damage, the Smuggler takes no damage with a successful saving throw. Evasion can only be used if the Smuggler is wearing light armor or no armor. It is an extraordinary ability.

**Sneak Attack:** Any time the Smuggler's target would be denied a Dexterity bonus to AC (whether the target actually has a Dexterity bonus or not), or when the Smuggler flanks the target, the Smuggler's attack deals extra damage. The extra damage is +1d6 at 1st level and an additional 1d6 every two levels thereafter. Should

**TABLE 2-8: THE SMUGGLER**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+2	+0	+1	Concealed Cargo (DC 15)
2 <sup>nd</sup>	+1	+0	+3	+0	+1	Evasion
3 <sup>rd</sup>	+2	+1	+3	+1	+2	Black Market
4 <sup>th</sup>	+3	+1	+4	+1	+2	Sneak Attack +1d6
5 <sup>th</sup>	+3	+1	+4	+1	+3	Concealed Cargo (DC 20)
6 <sup>th</sup>	+4	+2	+5	+2	+3	Sneak Attack +2d6
7 <sup>th</sup>	+5	+2	+5	+2	+4	Sensor Evasion
8 <sup>th</sup>	+6/+1	+2	+6	+2	+4	Sneak Attack +3d6;
9 <sup>th</sup>	+6/+1	+3	+6	+3	+5	Blockade Runner
10 <sup>th</sup>	+7/+2	+3	+7	+3	+5	Sneak attack +4d6
11 <sup>th</sup>	+8/+3	+3	+7	+3	+6	Concealed Cargo (DC 25)
12 <sup>th</sup>	+9/+4	+4	+8	+4	+6	Sneak Attack +5d6
13 <sup>th</sup>	+9/+4	+4	+8	+4	+7	
14 <sup>th</sup>	+10/+5	+4	+9	+4	+7	Sneak Attack +6d6
15 <sup>th</sup>	+11/+6/+1	+5	+9	+5	+8	Concealed Cargo (DC 30)
16 <sup>th</sup>	+12/+7/+2	+5	+10	+5	+8	Sneak Attack +7d6
17 <sup>th</sup>	+12/+7/+2	+5	+10	+5	+9	
18 <sup>th</sup>	+13/+8/+3	+6	+11	+6	+9	Sneak Attack +8d6
19 <sup>th</sup>	+14/+9/+4	+6	+11	+6	+10	Concealed Cargo (DC 35)
20 <sup>th</sup>	+15/+10/+5	+6	+12	+6	+10	Sneak Attack +9d6

the Smuggler score a critical hit with a sneak attack, this extra damage is not multiplied.

Ranged attacks can only count as sneak attacks if the target is within 30 feet. The Smuggler can't strike with deadly accuracy from beyond that range.

With a sap (blackjack) or an unarmed strike, the Smuggler can make a sneak attack that deals subdual damage instead of normal damage. The Smuggler cannot use a weapon that deals normal damage to deal subdual damage in a sneak attack, not even with the usual -4 penalty.

A Smuggler can only sneak attack a living creature with a discernible anatomy. Any creature that is immune to critical hits is also not vulnerable to sneak attacks. The Smuggler must be able to see the target well enough to pick out a vital spot and must be able to reach a vital spot. The Smuggler cannot sneak attack while striking a creature with concealment or striking the limbs of a creature whose vitals are beyond reach.

**Sensor Evasion:** Smugglers' lives depend on knowing everything that patrol sensors can see, and everything they can't. If a Sensor Operations check reveals the Smuggler's ship, he can make a Reflex save (DC Sensor skill roll) to avoid detection.

## STARSHIP OFFICER

Starship Officers make up the middle ground between Starship Commanders, the other core classes, and the large numbers of nameless crew that are needed to run any large Starship. The other base Classes, such as Doctor, Engineer, Marine, Scientist, and Pilot are found on large starships in great numbers, serving in specialist roles. The Starship Officer, on the other hand, is a generalist, trained in all aspects of ship operations. While not as good as any one facet of running a Starship as a Pilot or Engineer or Scientist, the Officer's ability to move from role to role, filling in as needed, makes him a valuable addition to any crew. In fact, the only crew specialty a Starship Officer can never fill distinction in the role of Marine, one of many facets that add fuel to the fire of the rivalry between Naval and Marine Personnel that extends back to the days of sail. Many specialists (members of other base classes) take levels in this class to become better acquainted with ship operations, and to rise in rank. As the Officer progresses in levels, he rises in rank, and gains greater command responsibilities. Many members of this core class aspire to be Starship Commanders.

### GAME RULE INFORMATION

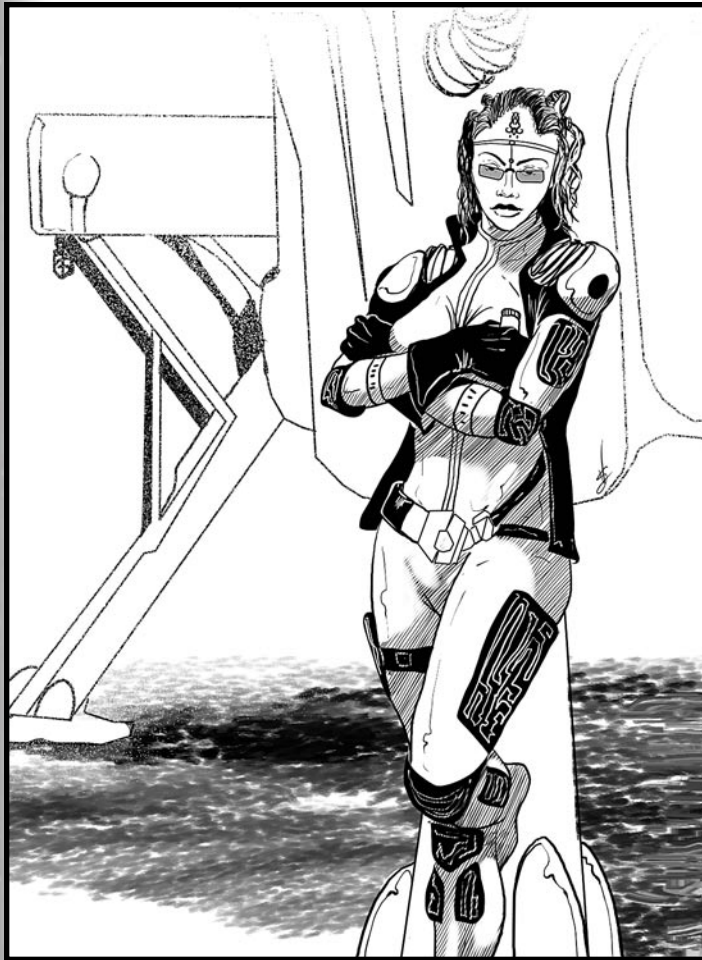
Starship Officers have the following game statistics:

**Abilities:** Intelligence is the single most important ability of the Starship Officer, followed by Charisma. To fill his role as a generalist, the Officer needs skill points in

**TABLE 2-9: THE STARSHIP OFFICER**

Level	BAB	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+0	+2	+1	Bonus Feat
2 <sup>nd</sup>	+1	+0	+0	+3	+1	
3 <sup>rd</sup>	+2	+1	+1	+3	+2	Instruction
4 <sup>th</sup>	+3	+1	+1	+4	+2	Bonus Feat
5 <sup>th</sup>	+3	+1	+1	+4	+3	Voice of Command 1/day
6 <sup>th</sup>	+4	+2	+2	+5	+3	Train to Inexperienced
7 <sup>th</sup>	+5	+2	+2	+5	+4	
8 <sup>th</sup>	+6/+1	+2	+2	+6	+4	Bonus Feat
9 <sup>th</sup>	+6/+1	+3	+3	+6	+5	Train to Average
10 <sup>th</sup>	+7/+2	+3	+3	+7	+5	Voice of Command 2/day
11 <sup>th</sup>	+8/+3	+3	+3	+7	+6	
12 <sup>th</sup>	+9/+4	+4	+4	+8	+6	Bonus Feat
13 <sup>th</sup>	+9/+4	+4	+4	+8	+7	
14 <sup>th</sup>	+10/+5	+4	+4	+9	+7	
15 <sup>th</sup>	+11/+6/+1	+5	+5	+9	+8	Voice of Command 3/day
16 <sup>th</sup>	+12/+7/+2	+5	+5	+10	+8	Bonus Feat
17 <sup>th</sup>	+12/+7/+2	+5	+5	+10	+9	
18 <sup>th</sup>	+13/+8/+3	+6	+6	+11	+9	Train to Experienced
19 <sup>th</sup>	+14/+9/+4	+6	+6	+11	+10	
20 <sup>th</sup>	+15/+10/+5	+6	+6	+12	+10	Bonus Feat; Voice of Command 4/day





abundance, which Intelligence provides. Also, many ship operations skills require intelligence. Charisma makes the Officer better as a leader of his fellow crewmates.

**Alignment:** any Lawful. An Officer must be able to give and take orders.

**Hit Die:** d6

**Class Skills:** Communication Operations, Computer Use, Navigation, Pilot, Repair, Sensor Operations, Tactics, Treat Injury

Skill Points at 1<sup>st</sup> level: 6+Int. Modifier x 4

Skill Points at each additional level: 6 +Int. Modifier

### Class Features

**Weapon and Armor Proficiencies:** The Starship Officer is proficient in Light Armor, Simple and Ship to Ship Weapons

**Bonus Feats:** The Starship Officer gains a bonus feat from the following list: Advanced Training (Any), Bombardment Expert, Explorer, Leadership, Tactician, Tactician Squadron, Tactician Wing, Tactician Fleet, Teamwork, Teamwork – Noncombat.

**Instruction:** These characters specialize in crew training and drill procedures. The quality of a crew can have more impact on its success in battle than its officers. This character may train crew, granting that crew a

number of experience points equal to his charisma modifier each week to a maximum crew quality of green. See the Starship Crews section for more information on crew qualities and their affects on starship combat.

As the character gains levels, he can train crew faster. This will be listing in the class table. A character with Instruction +1 will grant one additional experience point per week of training. In addition to training faster, the character can also train a crew to higher levels of quality. This will also be listed in the respective class table.

Training a crew takes all the characters time and focus. If training is interrupted mid week, no experience is gained.

**Voice of Command:** This ability allows a character to issue *Orders* as a free action, rather than as a move-equivalent action. Thus, a character with this ability may issue three orders in a single round. See the Starship Crews section for more information on *Orders*.

## STARSHIP PILOT

Pilots are more disciplined than their Hotshot counterparts, and even when these two types of fliers find themselves on the same side of a battle, there is often a friendly rivalry between the two. Pilots see Hotshots as undisciplined speed demons, just out for a quick thrill. While Hotshots see Pilots as stiff, and unwilling to take the big risks necessary to win a dogfight.

### GAME RULE INFORMATION

Pilots have the following game statistics:

**Abilities:** Pilots need the reflexes of a cat. Dexterity is their most important Ability.

**Alignment:** any

**Hit Die:** d6

### Class Skills

Pilots Class Skills are (and the key ability for each):

Computer Use (Int), Navigation (Int), Pilot (Dex), Profession (Wis), Repair (Int), Sensor Operations (Int).

Skill Points at 1<sup>st</sup> Level: 4 + Int Modifier X 4

Skill Points at Each additional Level: 4 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** The Pilot is Proficient in Light Armor, and Simple, Martial and Ship-to-Ship Weapons

**Dogfighting:** Pilots receive this feat for free at 1<sup>st</sup> Level, as long as they meet the prerequisites. If the character does not meet the requirements, he may gain this feat at a later level once they are met.

TABLE 2-10: THE STARSHIP PILOT

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+2	+0	+1	Dogfighting
2 <sup>nd</sup>	+1	+0	+3	+0	+1	
3 <sup>rd</sup>	+2	+1	+3	+1	+2	
4 <sup>th</sup>	+3	+1	+4	+1	+2	Bonus Feat
5 <sup>th</sup>	+3	+1	+4	+1	+3	
6 <sup>th</sup>	+4	+2	+5	+2	+3	
7 <sup>th</sup>	+5	+2	+5	+2	+4	
8 <sup>th</sup>	+6/+1	+2	+6	+2	+4	Bonus Feat; Fighter Evasion
9 <sup>th</sup>	+6/+1	+3	+6	+3	+5	
10 <sup>th</sup>	+7/+2	+3	+7	+3	+5	
11 <sup>th</sup>	+8/+3	+3	+7	+3	+6	
12 <sup>th</sup>	+9/+4	+4	+8	+4	+6	Bonus Feat
13 <sup>th</sup>	+9/+4	+4	+8	+4	+7	
14 <sup>th</sup>	+10/+5	+4	+9	+4	+7	
15 <sup>th</sup>	+11/+6/+1	+5	+9	+5	+8	
16 <sup>th</sup>	+12/+7/+2	+5	+10	+5	+8	Bonus Feat
17 <sup>th</sup>	+12/+7/+2	+5	+10	+5	+9	
18 <sup>th</sup>	+13/+8/+3	+6	+11	+6	+9	Improved Fighter Evasion
19 <sup>th</sup>	+14/+9/+4	+6	+11	+6	+10	
20 <sup>th</sup>	+15/+10/+5	+6	+12	+6	+10	Bonus Feat

**Bonus Feats:** Pilot gets a bonus feat from the following list: Advanced Training (Engineering, Helm, Tactical), Barrel Roll, Bounce, Brinksmanship, Fighter Escort, Formation Flying, Hot Shoes, Immelman, Low-G Maneuvering, Slingshot, Tactician, Tactician Squadron, Tactician Wing, Teamwork, Wingman, Yaw and Lightem, Zero-G Maneuvering

**Starship Evasion:** At 8<sup>th</sup> level and beyond, the Pilot may make a Reflex Save (DC is equal to the damage inflicted by the attack) to reduce any damage to his starship by ½. If the Pilot fails this Save, his craft takes full damage. The defense modifier of the starship (positive or negative) is applied to the Pilot's Reflex Save. This ability may not be used by a craft larger than medium size.

**Improved Starship Evasion:** At 18<sup>th</sup> level and beyond, the Pilot can make a Reflex Save (DC is equal to the damage inflicted by the attack) to reduce any damage to his starship to zero. If the Pilot fails this Save, his craft still only takes ½ damage. The Defense modifier of the starship (positive or negative) applies to this Reflex Save. This ability may not be used by a starship larger than Medium size. This ability may only be used once per round.

## PRESTIGE CLASSES

### COLONIAL MARINE

Every civilization has its frontier regions. In science fiction games, these regions are often subject to not only the effects of lawlessness (piracy and so forth), but also the depredations of alien predators. These creatures are often agitated by the proximity of humans, who have interrupted their natural habitat, or perhaps they are simply animalistic carnivores that see the new arrivals as a welcomed new food source. Regardless of the reason for the conflict, when humanity and aliens come into conflict, these hapless frontiersmen and women can call on the Colonial Marines to come to their rescue. The Colonial Marines are a special operations unit of the far future, specializing in dealing with alien encounters, or “bugs” as these rough and tumble characters refer to them. They also tend to refer to their missions as “bug hunts”.

Colonial Marines accept all kinds of characters (providing the requirements are met), although Marines naturally make good candidates for this prestige class. However, Doctors, Scientists, Engineers, and Pilots are all actively recruited by the Colonial Marines to add



their useful backgrounds to the group, and every team of Colonial Marines will have at least one Doctor, one Engineer, and one Pilot.

### REQUIREMENTS

To qualify to become a Colonial Marine, a character must fulfill the following criteria:

**Skills:** Boarding 8+, Knowledge (Exobiology) 4+

**Feats:** Explorer, Armor Proficiency - Powered

### CLASS INFORMATION

The following information pertains to the Colonial Marine Prestige Class:

**HD:** d10

#### Class Skills

Colonial Marine Class Skills are Boarding (Dex), Computer Use (Int), Climb (Dex), Communication Operations (Int), Demolitions (Int), Intimidate (Cha), Jump (Str), Spot (Wis), Survival (Wis), Swim (Str).

Skill Points at Each Level: 2 + Int Modifier

#### Class Features

**Weapon and Armor Proficiencies:** Colonial Marines are Proficient in all weapons and armor.

**Bonus Feats:** At the levels indicated, the character will receive a bonus feat from the Marine list.

**Bug Hunter:** This works like a Ranger's favored enemy bonus, against all unintelligent aliens (in other words, not against NPC aliens, but against alien monsters).

The Colonial Marine gains a +1 bonus to Bluff, Listen, Sense Motive, Spot, and Survival checks when using these skills against all unintelligent aliens. Likewise, he gets the same bonus to weapon damage rolls against creatures of this type. A Colonial Marine also gets the damage bonus with ranged weapons, but only against targets within 30 feet (the Colonial Marine cannot strike with deadly accuracy beyond that range). The bonus doesn't apply to damage against creatures that are immune to critical hits.

**Equipment:** As long as a character works for the Colonial Marines he will be supplied with the equipment necessary to do his job. At the bare minimum this includes a suit of powered armor, a sidearm, communications equipment, and a means to get to his missions.

## CONTACT SPECIALIST

The character is a diplomat specializing in establishing friendly relations with newly encountered alien species, or ones too difficult for normal diplomats to make effective contact with. Such characters are almost always in the employ of some large galactic power, though occasionally such characters may be found working for an extremely intelligent, successful, and rich pirate lord.

### REQUIREMENTS

To qualify to become a Contact Specialist, a character must fulfill the following criteria:

**Skills:** Diplomacy 10+, Knowledge (Exobiology) 4+, Knowledge (Exolinguistics) 4+

**Feats:** Linguist

### CLASS INFORMATION

The following information pertains to the Contact Specialist Prestige Class:

**HD:** d4

#### Class Skills

Contact Specialist Class Skills are: Bluff (Cha), Communications Operations (Int), Computer Use (Int), Diplomacy (Cha), Gather Information (Cha), Knowledge (Exobiology) (Int), Knowledge (Exolinguistics) (Wis), Listen (Wis), Pilot (Dex), Sense Motive (Wis), Sensor Operations (Int), Speak Language (Int).

Skill Points at Each Level: 6 + Int Modifier

#### Class Features

**Weapon and Armor Proficiencies:** Light Armor.

**Voice of Reason:** The contact specialist is an expert at calming hot tempers and conflict resolution. The Contact

**TABLE 2-11: THE COLONIAL MARINE**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+1	+0	+2	+0	+1	Bug Hunter +2; Equipment
2 <sup>nd</sup>	+2	+0	+3	+0	+2	Bonus Feat
3 <sup>rd</sup>	+3	+1	+3	+1	+2	
4 <sup>th</sup>	+4	+1	+4	+1	+3	Bonus Feat
5 <sup>th</sup>	+5	+1	+4	+1	+4	Bug Hunter +3
6 <sup>th</sup>	+6/+1	+2	+5	+2	+4	Bonus Feat
7 <sup>th</sup>	+7/+2	+2	+5	+2	+5	
8 <sup>th</sup>	+8/+3	+2	+6	+2	+6	Bonus Feat
9 <sup>th</sup>	+9/+4	+3	+6	+3	+6	
10 <sup>th</sup>	+10/+5	+3	+7	+3	+7	Bug Hunter +4

TABLE 2-12: THE CONTACT SPECIALIST

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+1	+0	+0	+2	+1	Voice of Reason +1
2 <sup>nd</sup>	+1	+0	+0	+3	+1	Voice of Reason +2
3 <sup>rd</sup>	+2	+1	+1	+3	+2	Sympathetic Ear
4 <sup>th</sup>	+2	+1	+1	+4	+2	Voice of Reason +3
5 <sup>th</sup>	+3	+1	+1	+4	+3	Voice of Reason +4

Specialist may automatically move a NPC's attitude up one category. So a Hostile NPC could be made Unfriendly, an Unfriendly one Indifferent, and so on. This ability may only be used if the Contact Specialist speaks the language of the person he is dealing with. At higher levels, the contact specialist may adjust the attitude by more categories.

**Sympathetic Ear:** This ability functions in place of Voice of Reason only when the character does not speak. The character does not need to speak the language of the being he is dealing with to gain this effect. He just simply has to listen.

## MARINE COMMANDER

Marine Commanders are tougher than you. Just admit it and get over it. These hard bitten men and women have seen more combat, in more stinking dives of the galaxy, than you'd ever want to see. And not only have they survived; they've prospered. In the astonished words of one Starship Officer "They love this stuff".

You want them on that wall; you need them on that wall. Just get out their way and let them do the job you don't want to do.

### REQUIREMENTS

To qualify to become a Marine Commander, a character must fulfill the following criteria:

**Base Attack Bonus:** 8+

**Skills:** Tactics 8+

**Feats:** Leadership, Teamwork, Tactician - Unit, Armor Proficiency - Powered, Armor Proficiency - Orbital

### CLASS INFORMATION

The following information pertains to the Marine Commander Prestige Class:

**HD:** d8

#### Class Skills

Marine Commander Class Skills are: Bluff (Cha), Boarding (Dex), Climb (Str), Communications Operation (Int), Computer Use (Int), Hide (Dex), Intimidate (Cha), Jump (Str), Pilot (Dex), Spot (Wis), Survival (Wis), Tactics (Int).

Skill Points at Each Level: 2+ Int Modifier

#### Class Features

**Weapon and Armor Proficiencies:** Simple and Martial Weapons, Light, Medium, and Heavy Armor

**Bonus Feats:** At the levels indicated, the character will receive a bonus feat from the Marine list.

**Inspire Bravery:** In the heat of battle, Marines are inspired by this character's personal bravery. Anytime this character joins a Marine unit in battle, it gains a +2 on all crew contests. This modifier increases as the character advances in level.

**Semper Fi:** Marines of this level that lead units into battle inspire such loyalty in their troop that units under their command are immune to Morale Hits.

**Voice of Command:** This ability allows a character to issue *Orders* as a free action, rather than as a move-equivalent action. Thus, a character with this ability may issue three orders in a single round. See the Starship Crews section for more information on *Orders*.

TABLE 2-13: THE MARINE COMMANDER

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+1	+2	+0	+2	+1	Voice of Command 1/day
2 <sup>nd</sup>	+2	+3	+0	+3	+2	Bonus Feat
3 <sup>rd</sup>	+3	+3	+1	+3	+2	Inspire Bravery +2
4 <sup>th</sup>	+4	+4	+1	+4	+3	Voice of Command 2/day
5 <sup>th</sup>	+5	+4	+1	+4	+4	
6 <sup>th</sup>	+6	+5	+2	+5	+4	Inspire Bravery +4
7 <sup>th</sup>	+7	+5	+2	+5	+5	Bonus Feat
8 <sup>th</sup>	+8	+6	+2	+6	+6	Voice of Command 3/day
9 <sup>th</sup>	+9	+6	+3	+6	+6	Inspire Bravery +6
10 <sup>th</sup>	+10	+7	+3	+7	+7	Semper Fi





## PIRATE CAPTAIN

As trade moved out into the stars, it seemed that crime, like war, inevitably followed. Pirates, or Privateers as they are called when operating with official sanction, are the masters of capturing ships and their cargo. Pirates of evil alignment typically then dispose of any crew in the most efficient manner possible, usually by “spacing” them. Neutral Pirates typically see crew as another source of income, and attempt to ransom them off.

### REQUIREMENTS

To qualify to become a Pirate Captain, a character must fulfill the following criteria:

**Alignment:** may not be Good

**Base Attack Bonus:** 3+

**Skills:** Boarding 8+

**Feats:** Armor Proficiency - Powered, Jamming

### CLASS INFORMATION

The following information pertains to the Pirate Captain Prestige Class:

**HD:** d8

### Class Skills

Pirate Captain Class Skills are: Boarding (Dex), Climb (Str), Communications Operations (Int), Computer Use (Int), Gather Information (Cha), Intimidate (Cha), Merchant (Cha), Navigation (Int), Open Lock (Dex), Tactics (Int).

Skill Points at Each Level: 4 + Int Modifier

### Class Features

**Weapon and Armor Proficiencies:** Simple and Martial Weapons, Light, Medium and Heavy Armor.

**Jolly Roger:** Pirate crews love money above all else. If promised a share of treasure taken from a merchant vessel (typically 20% divided among all Boarders), Pirate Marines engaged in Boarding actions gain a +4 bonus to all crew contests.

**Black Sail:** Pirates Captains are given (or are able to take) their own command. The character now gains the Leadership feat for free, and adds +1 to her leadership score for each Pirate level the character possesses (Level always adds to Leadership, so in effect the character adds his Pirate Captain levels twice).

**Black Flag:** The Pirate Captain has a reputation for making his crews rich. Any Marines the character recruits will have a minimum quality of Experienced.

**Pirate Lord:** The character has risen to the level where he is able to command other Pirate Captains. The character gains a Cohort at this level, who is at least a 5<sup>th</sup> level Marine/5<sup>th</sup> level Pirate Captain, or a 10<sup>th</sup> level Mercenary (character’s choice). This character serves as the Pirate Lord’s Lieutenant, helping to keep his growing organization in line.

**Pirate King:** The character is one of the most feared pirates in known space. The character is able to attract Marine Crews with a minimum experience level of Crack.

**Sneak Attack:** Same as Smuggler. This ability stacks with any previous sneak attack ability.

TABLE 2-14: THE PIRATE CAPTAIN

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+1	+2	+0	+0	+1	Jolly Roger
2 <sup>nd</sup>	+2	+3	+0	+0	+1	Black Sail
3 <sup>rd</sup>	+3	+3	+1	+1	+2	Sneak Attack +1d6
4 <sup>th</sup>	+4	+4	+1	+1	+2	
5 <sup>th</sup>	+5	+4	+1	+1	+3	Black Flag
6 <sup>th</sup>	+6	+5	+2	+2	+3	Sneak Attack +1d6
7 <sup>th</sup>	+7	+5	+2	+2	+4	
8 <sup>th</sup>	+8	+6	+2	+2	+4	Pirate Lord
9 <sup>th</sup>	+9	+6	+3	+3	+5	Sneak Attack +1d6
10 <sup>th</sup>	+10	+7	+3	+3	+5	Pirate King

## STARSHIP COMMANDER

Command is both a burden and a privilege. Starships, like most groups of people, operate best when there is a clear chain of command. Even during peacetime, space is often a dangerous, stressful place to be, and during times of stress, knowing who is in charge can be the difference between life and death. The Starship Commander is an expert strategist familiar not only with advanced tactics and military history, but also with winning the hearts and minds of his crew.

Starship Commanders are men and women used to being obeyed. When they issue an order, they do so in a manner that promotes action, without thought, without hesitation.

### REQUIREMENTS

To qualify to become a Starship Commander, a character must fulfill the following criteria:

**Feats:** Leadership, Tactician, Tactician - Squadron, Tactician - Wing, Teamwork (Any)

### CLASS INFORMATION

The following information pertains to the Starship Commander Prestige Class:

**HD:** d6

#### Class Skills

Starship Commander Class Skills are: Bluff (Cha), Communications Operations (Int), Computer Use (Int), Diplomacy (Cha), Intimidate (Cha), Pilot (Dex), Sense Motive (Cha), Sensor Operations (Int), Tactics (Int).

Skill Points at Each Level: 4 + Int Modifier

#### Class Features

**Weapon and Armor Proficiencies:** Simple Weapons, Ship-to-Ship Weapons, Light Armor

**Voice of Command:** This ability allows a character to issue *Orders* as a free action, rather than as a move-equivalent action. Thus, a character with this ability may issue three orders in a single round. See the Starship Crews section for more information on *Orders*.



**Inspire Greatness:** Starship Commanders can make the people around them better, performing better than they ever thought they could in the heat of battle. A character with this ability can temporarily raise her crew one level of Crew Quality for the rest of the engagement. A character can also use this ability to instantly heal one unit of all Morale Hits.

**Tactical Insight:** This ability represents a flash of genius in a tactical contest against another commander (see the tactics skill for more information). The Commander may add his levels in this Prestige Class to any opposed Tactics check, any Sense Motive skill check, or any Bluff skill checks.

**Admiralty:** The character becomes an Admiral, granting the character a +2 bonus to all charisma based skill checks and Tactician- Fleet feat for free.

**TABLE 2-15: THE STARSHIP COMMANDER**

Level	Base Attack	Fort	Ref	Will	Def	Special
1 <sup>st</sup>	+0	+0	+0	+2	+1	Voice of Command 1/day
2 <sup>nd</sup>	+1	+0	+0	+3	+1	Inspire Greatness 1/day
3 <sup>rd</sup>	+1	+1	+1	+3	+2	Tactical Insight 1/day
4 <sup>th</sup>	+2	+1	+1	+4	+2	Inspire greatness 2/day
5 <sup>th</sup>	+2	+1	+1	+4	+3	Voice of Command 2/day
6 <sup>th</sup>	+3	+2	+2	+5	+3	Tactical Insight 2/day
7 <sup>th</sup>	+3	+2	+2	+5	+4	Inspire Greatness 3/day
8 <sup>th</sup>	+4	+2	+2	+6	+4	Admiralty
9 <sup>th</sup>	+4	+3	+3	+6	+5	Tactical Insight 3/day
10 <sup>th</sup>	+5	+3	+3	+7	+5	Voice of Command 3/day



# CHAPTER 3: SKILLS AND FEATS

Admiral Antilles and Captain Armstrong sat alone in the Admiral's Mess, looking over the latest Damage Control reports, and grabbing a quick meal before the ship headed out again. Both had been on enough campaigns to know that you ate when you could at times like these, because you never knew when your next chance was going to be.

The Admiral pushed the flashing stud set into the table during a pause in the conversation, and the speaker cracked as Sarita Zeleznik's voice came through over the din of welding torches, "Quicksilver Drive is back online Captain, I'm going to assist Ensign Carstares with getting the main antiproton batteries back online, but we can get her underway at any time."

"Thank you Commander."

Captain Armstrong chuckled and took another long drink of the strong coffee the two men shared. "She sounds nervous. You sure you made the right choice?"

"She'll do fine. Besides, she's older than you were. And, there was no one else."

The Captain chuckled. "You could always make Ensign Carstares the Chief Engineer."

The Admiral chuckled, and took one last drag off his pipe before slipping it down, tapping it out against his boot, "Not in this lifetime. Now, let's go find these pirates before I get any older."

Chuckling, the two men left the mess and headed up the ladder to the bridge.

## SKILLS

The following are new skills that relate to space combat and adventure.

### BOARDING (DEH)

*Trained Only*

A tactic that has returned from the days of sailing vessels, boarding represents specialized training in this daring strategy. Air locks are the target of attackers, and often pitched battles are waged here as boarding troops attempt to fight their way onto the ship. The two craft must be at boarding range before this type of attack may be attempted, and a Boarding attempt is only made on a mobile craft under the most desperate of circumstances. The base skill DC to successfully board another ship is 20, modified from the table below.

**Check:** With a successful Boarding check you have made your way onto the target vessel. A failed check means you float off into vacuum, and hope your side wins the battle so they can pick you up (and that the fight ends before your air supply does). However, specialized equipment (especially the magnetic grapple) makes this maneuver much safer.

Boarding DC Modifiers	DC
Target craft is not immobilized	10 + Acceleration
Magnetic Boots	-5
Magnetic Grapple	-10

**Retry:** Only if the character has a magnetic grapple. In which case, he is dangling helplessly (flat-footed) until he successfully makes a roll and pulls himself into the breach.

## COMMUNICATION OPERATIONS (INT)

This skill represents familiarity with communication systems, both shipboard and handheld. Although anyone can operate such equipment with no specialized training, being able to send off a message under adverse conditions (during a radiation storm or with a damaged transmitter) is often the difference between rescue and death.

**Check:** Unless there is severe weather, the character's transmitter is damaged, or an enemy is actively jamming his signal, there is usually no need to make a check. If the character's transmitter is damaged, then the DC of her skill check is 10 + the amount of damage the system has suffered. If it is a storm, the DC would be anywhere from 15 for an extremely heavy thunderstorm to 30 from within Jove's Eye. If the PC is attempting to overcome enemy Jamming, then the DC is usually a skill vs. skill contest, though some ships have Jamming Fields (see Miscellaneous Starship Equipment) and some Terrain features (see Terrain in the Starship Combat chapter) emit passive Jamming Fields, which require a static DC to be overcome for any successful communication to be sent.

**Jamming:** Characters may use this skill to jam the communications of others. In space, where lonely outposts, months away from help often contain valuables, electronic warfare can allow an attack to go undetected for months, even years, allowing the thieves time to disappear completely. Jamming is not rolled against a static DC, but rather as a skill vs. skill contest against the Communications Operations of the character's opponent. The character engaging in active jamming rolls her skill check first, which sets the DC for her opponent's Communications skill to successfully get a signal through. Unless the character possesses the *Jamming* feat, he suffers a -4 penalty to all jamming attempts.

**Retry:** The character may retry the skill whenever conditions improve. If the storm lessens, or if her transmitter is repaired (even partially), the character may try again. If the character is trying to pierce enemy Jamming, she may not try again unless the enemy has stopped and restarted for some reason.

## COMPUTER USE (INT)

Computers are the lifeblood of the future. Anything and everything is controlled by computers. Knowledge in this skill is a prerequisite for normal life in the future. The uses and applications of the skill are broad and far reaching.

**Check:** Most normal computer operations don't require a Computer Use check (though a character might have to make a Research check; see the Research skill description). However, searching an unfamiliar network for a particular file, writing computer programs, altering existing programs to perform differently (better or worse), and breaking through computer security are all relatively difficult and require skill checks.

**Find File:** This skill can be used for finding files or data on an unfamiliar system. The DC for the check and the time required are determined by the size of the site on which the character is searching.

Finding public information on the Internet does not fall under this category; usually, such a task requires a Research check. This application of the Computer Use skill only pertains to finding files on private systems with which the character is not familiar.

Size of Site	DC	Time
Personal computer	10	1 round
Small network	15	2 rounds
Large network	20	1 minute
Massive network	25	10 minutes

**Defeat Computer Security:** This application of Computer Use can't be used untrained. The DC is determined by the quality of the security program installed to defend the system. If the check is failed by 5 or more, the security system immediately alerts its administrator that there has been an unauthorized entry. An alerted administrator may attempt to identify the character or cut off the character's access to the system.

Sometimes, when accessing a difficult site, the character has to defeat security at more than one stage of the operation. If the character beats the DC by 10 or more when attempting to defeat computer security, the character automatically succeeds at all subsequent security checks at that site until the end of the character's session (see Computer Hacking below).

Level of Security	DC
Minimum	20
Average	25
Exceptional	35
Maximum	40

**Defend Security:** If the character is the System Administrator for a site (which may be as simple as being the owner of a laptop), he or she can defend the site against intruders. If the site alerts the character to an

intruder, the character can attempt to cut off the intruder's access (end the intruder's session), or even to identify the intruder.

To cut off access, make an opposed Computer Use check against the intruder. If the character succeeds, the intruder's session is ended. The intruder might be able to defeat the character's security and access his or her site again, but the intruder will have to start the hacking process all over. Attempting to cut off access takes a full round.

One surefire way to prevent further access is to simply shut the site down. With a single computer, that's often no big deal—but on a large site with many computers (or computers controlling functions that can't be interrupted), it may be time-consuming or even impossible.

To identify the intruder, make an opposed Computer Use check against the intruder. If the character succeeds, the character learns the site from which the intruder is operating (if it's a single computer, the character learns the name of the computer's owner). Identifying the intruder requires 1 minute and is a separate check from cutting off access. This check can only be made if the intruder is accessing the character's site for the entire length of the check—if the intruder's session ends before the character finishes the check, the character automatically fails.

This application of the skill can be used to intercept a cell phone conversation if the character has a cellular interceptor. The DC is 35, or 25 if the character knows the number of the phone that initiated the call.

**Degrade Programming:** A character can destroy or alter applications on a computer to make use of that computer harder or impossible. The DC for the attempt depends on what the character tries to do. Crashing a computer simply shuts it down. Its user can restart it without making a skill check (however, restarting takes 1 minute). Destroying programming makes the computer unusable until the programming is repaired. Damaging programming imposes a -4 penalty on all Computer Use checks made with the computer (sometimes this is preferable to destroying the programming, since the user might not know that anything is wrong, and won't simply decide to use a different computer).

A character can degrade the programming of multiple computers at a single site; doing so adds +2 to the DC for each additional computer.

Scope of Alteration	DC	Time
Crash computer	10	1 minute
Destroy programming	15	10 minutes
Damage programming	20	10 minutes

Fixing the degraded programming requires 1 hour and a Computer Use check against a DC equal to the DC for degrading it + 5.

**Write Program:** A character can create a program to help with a specific task. Doing so grants the character a

+2 circumstance bonus to the task.

A specific task, in this case, is one type of operation with one target.

The DC to write a program is 20; the time required is 1 hour.

This skill also allows the character to write programs for a ship's computer, at the DC listed in the computers section of the starship construction chapter.

**Operate Remote Device:** Many devices are computer-operated via remote links. If the character has access to the computer that controls such systems, the character can either shut them off or change their operating parameters. The DC depends on the nature of the operation. If the character fails the check by 5 or more, the system immediately alerts its administrator that there has been an unauthorized use of the equipment. An alerted administrator may attempt to identify the character or cut off his or her access to the system.

**Special:** A character can take 10 when using the Computer Use skill. A character can take 20 in some cases, but not in those that involve a penalty for failure. (A character cannot take 20 to defeat computer security or defend security.)

**Time:** Computer Use requires at least a full-round action. The GM may determine that some tasks require several rounds, a few minutes, or longer, as described above.

Type of Operation	DC	Time
Shut down passive remote (Including cameras and door locks)	20	1 round per remote
Shut down active remote (including motion detectors and alarms)	25	1 round per remote
Reset parameters	30	1 minute per remote
Change passcodes	25	1 minute
Hide evidence of alteration	+10	1 minute
Minimum security	-5	—
Exceptional security	+10	—
Maximum-security	+15	—

## CRAFT (INT)

This skill encompasses several categories, each of them treated as a separate skill.

Craft skills are specifically focused on creating objects. To use a Craft skill effectively, a character must have a kit or some other set of basic tools.

To use Craft, first decide what the character is trying to make and consult the category descriptions below. The character must buy at least one third of the value of the item in raw materials. The Game Master might want to adjust the raw material cost of items that require rare materials or parts. Once the character has procured the

raw materials, they may make the Craft check against the given DC for the object in question. If the character fails the check, he or she does not make the object, and the raw materials are wasted (unless otherwise noted).

Generally, a character can take 10 when using a Craft skill to construct an object, but can't take 20 (since doing so represents multiple attempts, and the character uses up the raw materials after the first attempt). The exception is Craft (writing); a character can take 20 because the character does not use up any raw materials (and thus no Wealth check is required to use the skill).

## CRAFT (CHEMICAL) (INT)

*Trained Only*

This skill allows a character to mix chemicals to create acids, bases, explosives, and poisonous substances.

**Explosives:** Building an explosive from scratch is dangerous. If the Craft (chemical) check fails, the raw materials are wasted. If the check fails by 5 or more, the explosive compound detonates as it is being made, dealing half of its intended damage to the builder and anyone else in the burst radius.

If the check succeeds, the final product is a solid material, about the size of a brick. An explosive compound does not include a fuse or detonator. Connecting a fuse or detonator requires a Demolitions check.

Explosive	Price	DC	Time
Improvised (1d6/5 feet)*	100cr	10	1 round
Simple (2d6/5 feet)	200cr	15	10 min.
Moderate (4d6/10 feet)	300cr	20	1 hr.
Complex (6d6/15 feet)	500cr	25	3 hr.
Powerful (8d6/20 feet)	700cr	30	12 hr.
Devastating (10d6/25 feet)	900cr	35	24 hr.

\* The figures in parentheses are typical damage/burst radius for each type of explosive.

## CRAFT (ELECTRONIC) (INT)

*Trained Only*

This skill allows a character to build electronic equipment from scratch, such as audio and video equipment, timers and listening devices, or radios and communication devices.

When building an electronic device from scratch, the character describes the kind of device he or she wants to construct; then the Game master decides whether the device is simple, moderate, complex, or advanced compared to current technology.

Electronics (Examples)	Price	DC	Time
Simple (timer or detonator)	300cr	15	1 hr.
Moderate (electronic lock)	500cr	20	12 hr.
Complex (cell phone)	800cr	25	24 hr.
Advanced (computer)	*	30	60 hr.

\* See starship construction for computer prices and DC.



**Special:** A character without an electrical tool kit takes a -4 penalty on Craft (electronic) checks. A character with the Builder feat gets a +2 bonus on all Craft (electronic) checks.

## CRAFT (MECHANICAL) (INT)

*Trained Only*

This skill allows a character to build mechanical devices from scratch, including engines and engine parts, weapons, armor, and other gadgets. When building a mechanical device from scratch, the character describes the kind of device he or she wants to construct; then the Game master decides if the device is simple, moderate, complex, advanced, or super advanced.

Mechanical Device (Examples)	DC	Time
Simple (tripwire trap)	15	1 hr
Moderate (engine component)	20	12 hr.
Complex (automobile engine)	25	24 hr.
Advanced (jet engine)	30	60 hr.

**Weapons and Armor:** A character with the respective item creation feats can craft personal and starship weapons and armor. See the equipment and starship construction chapters of *Blood and Space* for more information on the various prices and features of specific weapons and armor.

Weapons and Armor	DC	Time
Simple (simple weapons, light and medium armor)	15	10 hr
Moderate (martial weapons, heavy armor)	20	24 hr.
Complex (exotic weapons, powered and orbital armor)	25	60 hr.
Advanced (starship weapons and defense systems)	30	240 hr.

**Stardrives:** A character with the *Starship* item creation feat can craft star drives equipment at DC 30. Stardrive take 600 hours to construct. See the starship construction chapter of *Blood and Space* for more information on Stardrives.

**Miscellaneous Starship equipment:** A character with the *Starship* item creation feat can craft miscellaneous starship equipment at a DC 25. See the starship construction chapter of *Blood and Space* for more information on miscellaneous starship equipment

**Space Opera Technology:** Space opera weapons, defense systems, and drives represent technologies that take years or decades to develop and construction. They should not be available to player characters. Game masters should develop additional guidelines and tasks for players if they desire to create a space opera technology.

## CRAFT (PHARMACEUTICAL) (INT)

*Trained Only*

This skill allows a character to compound medicinal drugs to aid in recovery from treatable illnesses. A medicinal drug gives a +2 circumstance bonus on Fortitude saves made to resist the effects of a disease.

The Craft (pharmaceutical) check is based on the severity of the disease to be countered as measured by the DC of the Fortitude save needed to resist it.

Save DC	Price	DC	Time
14 or lower	150cr	15	1 hr.
15–18	300cr	20	3 hr.
19–22	450cr	25	6 hr.
23 or higher	600cr	30	12 hr.

**Special:** A character without a pharmacist kit takes a -4 penalty on Craft (pharmaceutical) checks. A character with the Medical Expert feat gets a +2 bonus on all Craft (pharmaceutical) checks.

## CRAFT (STRUCTURAL) (INT)

*Trained Only*

This skill allows a character to build wooden, concrete, or a metal structure from scratch. In addition to the simple uses of this craft skill, a character with the *Starship* item creation feat may craft structural components of a starship, including hulls and facilities.

When building a structure from scratch, the character describes the kind of structure he or she wants to construct; then the Game Master decides if the structure is simple, moderate, complex, or advanced in scope and difficulty.

Structure	Price	DC	Time
Simple	5	15	12 hr.
Moderate	10	20	24 hr.
Complex	15	25	60 hr.
Advanced	20	30	600 hr.

**Starship facilities:** Costs and craft DCs for starship facilities are based on facility cargo usage using the table below. Hull prices can be found in the starship construction chapter of *Blood and Space*.

Facilities Cargo	DC	Time
1-2 tons	15	100 hr
3-4 tons	17	200 hr
5-6 tons	20	400 hr
7-9 tons	25	600 hr
10+ tons	30	1000 hr

**Starship hulls:** Costs and craft DCs for starship hulls are based on the hull size using the table below. Hull prices can be found in the starship construction chapter of *Blood and Space*.

Size	DC	Time
Micro	12	12 hr
Fine	13	24 hr
Diminutive	15	60 hr
Tiny	17	90 hr
Small	20	120 hr
Medium	23	200 hr
Large	25	600 hr
Huge	30	1000 hr
Capital	30	2000 hr
Dreadnought	30	3000 hr
Station	30	4000 hr

## DEMOLITIONS (INT)

*Trained Only*

**Check:** Setting a simple explosive to blow up at a certain spot doesn't require a check, but connecting and setting a detonator does. Also, placing an explosive for maximum effect against a structure calls for a check, as does disarming an explosive device.

**Set Detonator:** Most explosives require a detonator to go off. Connecting a detonator to an explosive requires a Demolitions check (DC 10). Failure means that the explosive fails to go off as planned. Failure by 10 or more means the explosive goes off as the detonator is being installed.

A character can make an explosive difficult to disarm. To do so, the character chooses the disarm DC before making his or her check to set the detonator (it must be higher than 10). The character's DC to set the detonator is equal to the disarm DC.

**Place Explosive Device:** Carefully placing an explosive against a fixed structure (a stationary, unattended inanimate object) can maximize the damage dealt by exploiting vulnerabilities in the structure's construction.

The GM makes the check (so that the character doesn't know exactly how well he or she has done). On a result of 15 or higher, the explosive deals double damage to the structure against which it is placed. On a result of 25 or higher, it deals triple damage to the structure. In all cases, it deals normal damage to all other targets within its burst radius.

**Disarm Explosive Device:** Disarming an explosive that has been set to go off requires a Demolitions check. The DC is usually 10, unless the person who set the detonator chose a higher disarm DC. If the character fails the check, he or she does not disarm the explosive. If the character fails by more than 5, the explosive goes off.

**Special:** A character can take 10 when using the Demolitions skill, but can't take 20.

A character with the Cautious feat and at least 1 rank in this skill gets a +2 bonus on all Demolitions checks.

A character without a demolitions kit takes a -4 penalty on Demolitions checks.

Making an explosive requires the Craft (chemical) skill. See that skill description for details.

Time: Setting a detonator is usually a full-round action.

Placing an explosive device takes 1 minute or more, depending on the scope of the job.

## KNOWLEDGE (EXOBIOLOGY) (INT)

*Trained Only*

This skill represents training and study of alien life forms and alien biology. It allows the character to better know how to heal or hurt the various "bugs" encountered in her travels through the galaxy.

**Check:** A skill check (DC 15) allows the character to identify an alien species, and determine (generally) if it is a predator or not, and whether or not it is ordinarily dangerous. A skill check equal to the Defense of an alien creature adds +1 to the damage of the character's attacks for each point by which the skill check exceeds the alien's Defense. Using this skill for this purpose in combat is a Move-Equivalent action. A character's effective ranks in Treat Injury may not exceed the character's exobiology skill when he is treating alien patients (so a character with 6 ranks in Treat Injury, but only 4 ranks in Exobiology only gets to use 4 of her Treat Injury ranks when treating alien patients).

## KNOWLEDGE (EXOLINGUISTICS) (INT)

*Trained Only*

The character has studied the bizarre languages of alien races. He has learned how to train his mouth and vocal chords to force his mouth to make sounds no human was meant to make.

**Check:** If a character is eligible to learn a new language with the Linguist feat, and wishes to learn an alien tongue, he must succeed at a check with this skill. The DC of the check is determined by how alien the language is to humanity (obviously if the character in question is an alien himself, then the DC would be determined by how close the language is to his native tongue), guided by the table below:

Language	DC
Language is somewhat alien (involving clicks, whistles, and other sounds humans can easily Make, but do not normally associate with language)	15
Language is alien (often requiring handmade artificial aids, be prepared to assist in making some sounds, such as the extreme low register calls of certain whales and so on)	20
Language is almost unrecognizable to a humanoid as language (communicating by Pheromones, light displays, body language and posture only, and so forth)	25

## MERCHANT (CHA)

The wheels of business turn more rapidly than they ever did in the future. There are no anti-monopoly laws, and in an alien environment, where a burnout on a critical power circuit or running out of CO2 scrubbers can mean a slow agonizing death, the laws of Supply and Demand reign supreme. Welcome to pure Adam Smith territory.

**Check:** This skill allows a character to negotiate for lower prices from wholesalers, and in turn to negotiate for higher prices with the final purchaser of a product. The GM will consult the Supply-Demand-Ratio Table (SDR Table), which will both give him a base price-per-ton of a given commodity, but also the DC to negotiate that price. The DC to negotiate with wholesalers and retailers are inverse from one another.

For example, a Merchant hears of an opportunity (Gather Information skill check): a fire at the Pluto Observatory has destroyed their supply of oxygen scrubbers, and the station is in dire straits. The DC to lower the merchant's wholesale price will be high, since the wholesaler knows the situation as well as the merchant, and knows the killing he's going to make off the sale. Inversely, once the merchant reaches his destination, his DC to negotiate with the retailer will be extremely low, since they won't live without more scrubbers.

For every point by which the Merchant exceeds the given DC, he will be able to lower or raise the SDR by .1 per point for selling, or lower it for buying.

The Merchant skill is also used to find an item a character needs at a Junk Market (some people just know how to shop). The Base DC is 15 on Earth or Luna, 20 in the Jovian System, and 25 in the Outer Worlds.

**Retry:** Once the character enters into negotiations (in other words makes his skill check), retries are difficult. The character must either break off negotiations for several days (which could allow another merchant to come in and buy the wholesaler's supply out from under him), or break them off altogether and go to a different wholesaler.

## NAVIGATION, STARSHIP (INT)

*Trained Only*

Space voyages are like incredibly long, well-orchestrated pool shots. Engine burns are kept to a minimum, as fuel is extremely expensive, and adds substantially to the Mass of the ship. Not only does this mean a ship has less room for cargo, but it also means the ship take more fuel to move, resulting in diminishing returns. This skill allows the Character to use his knowledge of where gravity wells are and how they move to plot their position at each stage along his journey to speed up his trip significantly, increasing his speed with no increase in fuel consumption.

**Check:** The GM will consult his table for Interplanetary Travel Times, and the Navigator of the ship will make a Skill Check (DC 20). This adds one to the craft's long term Acceleration (moves the ship one step up the engine chart). For every 5 points by which the roll exceeds the DC, the Navigator adds an addition +1 to his craft's Acceleration through a series of Slingshots.

**Retry:** Once the character has plotted his course (in other words made his Navigation check), he may not retry the check until halfway through his journey. However, Starships are equipped with computers will greatly enhance the character's ability to plot a good course. For Combat Slingshot rolls, the character may re-roll every round.

**Special:** If you have 5 or more ranks in Pilot you receive a +2 synergy bonus on Navigation checks.

## NAVIGATION, HYPERSPACE (INT)

*Trained Only, Space Opera*

Traveling through Hyperspace is a risky way to get around. This skill represents a character that is well versed in the intricacies of this bizarre parallel dimension used by ships in space opera games to quickly traverse the galaxy.

**Check:** This skill may be used in place of a sensor operations check to detect large hyperspace storms before a ship gets close enough to be endangered by them (representing a Rift or Storm well known enough to be on a hyperspace star chart). A successful skill check (DC 20) will also add .1 C to a ship's speed, allowing it to arrive at its destination a little faster.

## PILOT (DEK)

*Trained Only*

This skill is essential to anyone wishing to ply the spaceways as anything other than a passenger. Although almost all characters will have some ability at Piloting a craft (handy for when the party's main Pilot is unconscious), characters who are truly great Pilots will be an asset to any group.

**Check:** While the character's Ranks in Piloting Skill are very important in Ship to Ship to combat (determining



his craft's Base Defense), there are also numerous "stunts" and tricks he can perform using his piloting skill to gain advantages in combat. Each of these maneuvers carries a -4 penalty to the listed Pilot skill check DC, unless the character has the Feat of the same name.

**Special:** Engaging in Active Defense (adding your Piloting skill to the Defense of your ship) is a Move-Equivalent Action. Turning a Starship, no matter how many times you turn in a round, is likewise a Move-Equivalent Action. This means that attempting to pilot a starship and fire weapons at the same time is a dicey proposition, and one reason (of several) that the Dogfighting feat is so vital to fighter pilots.

## REPAIR (INT)

*Trained Only*

Beyond the standard rules for the repair skill, the following are additional guidelines for starship repair and maintenance.

**Check:** Outside of combat, the DC required for successful use of this skill depends on whether the problem with the machinery is due to a mild glitch (DC10), a minor malfunction (DC15), a severe malfunction (DC20), or a catastrophic malfunction (DC 25). In combat, the DC to repair a damaged system is equal to the amount of damage that system has sustained (so a computer hit with a laser for 15 points of damage would take a Repair Check of 15 or better to repair).

There are two types of Repair checks: damage control, and dry-dock. A damage control repair may be performed in combat (as a full round action), and is enough to get a device going again, at -2 (so a weapon would be -2 damage, an engine would be -2 Acceleration, a Sensor would give all attacks -2 to attack rolls and a -2 to all Sensor Operation checks). If the system is knocked out again, it may be repaired again, but takes the penalty a second time.

Dry dock repairs require the ship to be completely immobilized at a properly equipped repair facility, the engines taken off line, and take several days to several weeks, depending on the severity of the damage. Unlike damage control, which can never restore a system to full effectiveness, a dry dock repair restores the system 100%.

**Special:** If a character has 5 Ranks of Repair, he can perform routine maintenance on a Starship, reducing the operating costs of that ship by 50%.

If a character has 5 ranks in Repair he may assist in the installation of a new Stardrive.

If a character has 10 Ranks in Repair he can supervise the installation of a new Stardrive on a ship, which, if he has enough assistants, will reduce the cost of that engine by 20%. If the character does not have enough assistants, the cost is reduced by 10%.

## RESEARCH (INT)

Knowledge is power, and in the future, knowledge is at your fingertips if you know where to look. The LaserNet beams information out into space at the speed of light, and the most obscure topics can be researched with this skill, from Exo-genetics to the history of interstellar navigation.

**Check:** Researching a topic takes time, skill, and some luck. The GM determines how obscure a particular topic is (the more obscure, the higher the DC) and what kind of information might be available depending on where the character is conducting his or her research.

Information ranges from general to protected. Given enough time (usually 1d4 hours) and a successful skill check, the character gets a general idea about a given topic. This assumes that no obvious reasons exist why such information would be unavailable, and that the character has a way to acquire restricted or protected information.

The higher the check result, the better and more complete the information. If the character wants to discover a specific fact, date, map, or similar bit of information, add +5 to +15 to the DC.

**Retry:** Yes.

**Special:** A character can take 10 or take 20 on a Research check.

**Time:** A Research check takes 1d4 hours.

## SENSOR OPERATIONS (INT)

This skill represents knowledge and familiarity with shipboard and personal sensor systems. While all player characters in *Blood and Space* will have a passing familiarity with these systems (thus the fact that the skill can be used untrained), there are specialists who turn radar detection into an art, and seem to have an almost psychic connection to their sensor systems. These rare individuals are highly sought after.

**Check:** The effects of this skill and the skill check DCs involved vary widely depending on whether the ships are in deep or crowded space.

**Deep Space:** When two ships enter sensor range of one another, one person on each ship (the person at the sensor console) may make a Sensor Operations check to attempt to detect the presence of another spacecraft. The DC of this check is:

DC	Check
15 + Size Modifier	Detect Starship
+10	Artificial Satellites in area

**Retry:** Each time a ship enters a new range category, the Sensor Operator may roll a new skill check. Often a failed skill check means the operator saw the object, but thought it was an asteroid or comet. As the ship gets closer, the character may realize its moving under power, or moving too erratically to be a natural object, and so on.

## SURVIVAL (WIS)

With the myriad of worlds visited by interstellar explorers, this skill becomes even more important. Even the most beautiful, Edenic world holds danger for the uninitiated. Is that plant with the luscious looking fruit what it seems, or is it a carnivore that thinks your landing party is luscious?

**Check:** A character can keep himself and others safe and fed in the wild.

With the Track feat, a character can use Survival checks to track a character or animal across various terrain types.

**Special:** A character can take 10 when making a Survival check. A character can take 20 when tracking, or if there is no danger or penalty for failure, but not on periodic checks to get along in the wild.

A character with the Guide feat gets a +2 bonus on all Survival checks.

**Time:** Basic Survival checks occur each day in the wilderness or whenever a hazard presents itself. When using Survival with the Track feat to track a character or animal, checks are made according to distance, as described in the Track feat.

DC	Task
10	Get along in the wild. Move up to half the character's overland speed while hunting and foraging (no food or water supplies needed). The character can provide food and water for one other person for every 2 points by which the character's check result exceeds 10.
15	Gain a +2 circumstance bonus on Fortitude saves against severe weather while moving up to half the character's overland speed, or gain a +4 circumstance bonus if stationary. The character may grant the same bonus to one other character for every 1-point by which the character's check result exceeds 15.
18	Avoid getting lost and avoid natural hazards, such as quicksand.

## TACTICS (INT)

*Trained Only*

This skill represents study and familiarity with military history and strategy, as well as practical field considerations associated with commanding a force in battle, such as a knowledge of lines of supply, logistics, and other concerns that commanders face every day. This skill is often as much a deciding factor on who wins or loses a battle as which force is the most mobile or better armed.

**Check:** In crew combat, the character with the higher Tactics skill can add the difference between his skill and his opponent's to any crew combat roll once per battle, if he is personally leading those crew units. If the character's opponent does not have the Tactics skill, he

may add his entire Tactics skill to any one-crew check. Leading more than one crew unit effectively requires specialized Tactician feats (see the Feats section for more information).

## TREAT INJURY (WIS)

*Trained Only*

In the future, Medicine has made quantum leaps forward in its ability to heal the sick and the injured. With proper medical care, including liberal use of cloned organs and anti-aging hormones, ages of 200 are not unheard of. Treat injury represents the application of such techniques:

**Check:** The DC and effect depend on the task attempted.

**Long-Term Care (DC 15):** With a medical kit, the successful application of this skill allows a patient to recover hit points and ability points lost to temporary damage at an advanced rate—3 hit points per character level or 3 ability points restored per day of complete rest. A new check is made each day; on a failed check, recovery occurs at the normal rate for that day of rest and care.

A character can tend up to as many patients as he or she has ranks in the skill. The patients need to spend all their time resting. The character needs to devote at least ½ hour of the day to each patient the character is caring for.

**Restore Hit Points (DC 15):** With a medical kit, if a character has lost hit points, the character can restore some of them. A successful check, as a full-round action, restores 1d4 hit points. The number restored can never exceed the character's full normal total of hit points. This application of the skill can be used successfully on a character only once per day.

**Revive Dazed, Stunned, or Unconscious Character (DC 15):** With a first aid kit, the character can remove the dazed, stunned, or unconscious condition from a character. This check is an attack action.

A successful check removes the dazed, stunned, or unconscious condition from an affected character. The character can't revive an unconscious character who is at –1 hit points or lower without first stabilizing the character.

**Stabilize Dying Character (DC 15):** With a medical kit, a character can tend to a character that is dying. As an attack action, a successful Treat Injury check stabilizes another character. The stabilized character regains no hit points, but he or she stops losing them. The character must have a medical kit to stabilize a dying character.

**Surgery (DC 20):** With a surgery kit, a character can conduct field surgery. This application of the Treat Injury skill carries a –4 penalty, which can be negated with the Surgery feat. Surgery requires 1d4 hours; if the patient is at negative hit points, add an additional hour for every point below 0 the patient has fallen.

Surgery restores 1d6 hit points for every character level of the patient (up to the patient's full normal total of hit

points) with a successful skill check. Surgery can only be used successfully on a character once in a 24-hour period.

A character that undergoes surgery is fatigued for 24 hours, minus 2 hours for every point above the DC the surgeon achieves. The period of fatigue can never be reduced below 6 hours in this fashion.

**Treat Disease (DC 15):** A character can tend to a character infected with a treatable disease. Every time the diseased character makes a saving throw against disease effects (after the initial contamination), the treating character first makes a Treat Injury check to help the diseased character fend off secondary damage. This activity takes 10 minutes. If the treating character's check succeeds, the treating character provides a bonus on the diseased character's saving throw equal to his or her ranks in this skill.

**Treat Poison (DC 15):** A character can tend to a poisoned character. When a poisoned character makes a saving throw against a poison's secondary effect, the treating character first makes a Treat Injury check as an attack action. If the treating character's check succeeds, the character provides a bonus on the poisoned character's saving throw equal to his or her ranks in this skill.

**Retry:** Yes, for restoring hit points, reviving dazed, stunned, or unconscious characters, stabilizing dying characters, and surgery, no, for all other uses of the skill.

**Special:** The Surgery feat gives a character the extra training he or she needs to use Treat Injury to help a wounded character by means of an operation.

A character can take 10 when making a Treat Injury check. A character can take 20 only when restoring hit points or attempting to revive dazed, stunned, or unconscious characters.

Long-term care, restoring hit points, treating disease, treating poison, or stabilizing a dying character requires a medical kit. Reviving a dazed, a stunned, or unconscious character requires either a first aid kit or a medical kit. Surgery requires a surgery kit. If the character does not have the appropriate kit, he or she takes a -4 penalty on the check.

A character can use the Treat Injury skill on himself only to administer first aid, treat disease, or treat poison. The character takes a -5 penalty on your check any time he or she treats his or herself.

A character with the Medical Expert feat gets a +2 bonus on all Treat Injury checks.

**Time:** Treat Injury checks take different amounts of time based on the task at hand, as described above.

## FEATS

The following are new feats that relate to space combat and adventure.

### ADVANCED TRAINING, ENGINEERING (GENERAL)

You have had specialized starship engineering training.

**Effect:** The character gains a +2 Competence bonus on Communications and Repair skill checks

**Special:** If a character has the Instruction class ability he grants Engineering crew he is training +1 Experience per week of training.

### ADVANCED TRAINING, HELM (GENERAL)

You have had specialized starship helm training.

**Effect:** The character gains a +2 Competence bonus on Pilot and Navigation-Starship skill checks.

**Special:** If a character has the Instruction class ability he grants Helm crew he is training +1 Experience per week of training.

### ADVANCED TRAINING, MARINE (GENERAL)

You have had specialized marine training.

**Effect:** The character gains a +2 Competence bonus on Boarding and Tactics skill checks.

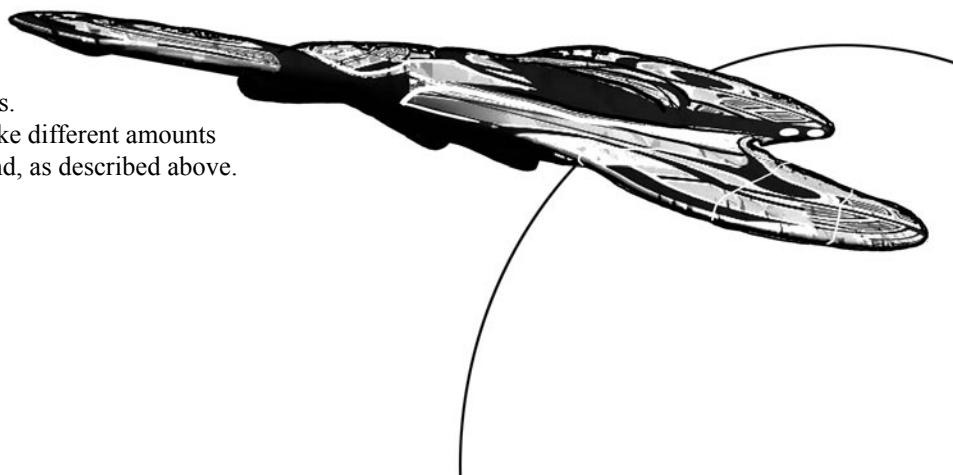
**Special:** If a character has the Instruction class ability he grants Marine crew he is training +1 Experience per week of training.

### ADVANCED TRAINING, MEDICAL (GENERAL)

You have had specialized medical training.

**Effect:** The character gains a +2 Competence bonus on Craft (Pharmaceutical) and Treat Injury skill checks.

**Special:** If a character has the Instruction class ability he grants Medical crew he is training +1 Experience per week of training.





## ADVANCED TRAINING, SCIENCE (GENERAL)

You have had specialized science training.

**Effect:** The character gains a +2 Competence bonus on Knowledge (Exobiology) and Sensor Operations skill checks.

**Special:** If a character has the Instruction class ability he grants Science crew he is training +1 Experience per week of training.

## ADVANCED TRAINING, TACTICAL (GENERAL)

You have had specialized tactical training.

**Effect:** The character gains a +2 Competence bonus on all Tactics skill checks.

**Special:** If a character has the Instruction class ability he grants crew he is training +2 Experience per week of training. This bonus is cumulative with that granted by any other feat granting a bonus to train specific crew types.

## ARMOR PROFICIENCY, ORBITAL (GENERAL)

You are proficient with one of the most potent military devices of the modern age: Orbital Insertion Armor (OIA). Orbital Armor is encased in a heat retarding ceramic that allows soldiers to be dropped from space and safely enter the planet's atmosphere. Once through the atmosphere, the heat shield flakes away and the character can fire retro jets to slow his descent.

**Prerequisites:** Armor Proficiency - Powered

**Effect:** See Armor Proficiency - Light in the PHB.

## ARMOR PROFICIENCY, POWERED (GENERAL)

You are proficient with powered armor.

**Prerequisites:** Armor Proficiency - Heavy

**Effect:** See Armor Proficiency - Light in the PHB.

## ARMORSMITH, PERSONAL (ITEM CREATION)

The character is proficient at creating suits of armor.

**Prerequisites:** Craft (mechanical) 4+

**Effect:** The character may make any personal armor (see equipment section for more information) by making a successful craft roll. The DC of this check is listed on the armor table. The character must have an Armorsmith lab (see the Starship Facilities section), or must rent access to one at a space station. The character must also purchase the appropriate materials, which cost 50% of the armor's cost, as listed on the equipment table. This skill also allows a character, if he wishes to earn his living as an Armorsmith, earning a monthly salary of 100cr per point of skill in Profession (Armorsmith).

## ARMORSMITH, SHIP (ITEM CREATION)

The character is proficient at creating ship defense systems.

**Prerequisites:** Craft (mechanical) 8+

**Effect:** The character may make any ship defense system (see *starship construction* for more information) by making a successful craft roll. The DC of this check is listed on the defense system table. The character must have an Armorsmith lab (see the Starship Facilities section), or must rent access to one at a space station. The character must also purchase the appropriate materials, which cost 50% of the defense system's cost. This skill also allows a character, if he wishes to earn his living as an Armorsmith, to earn a monthly salary of 100cr per point of skill in Profession (Armorsmith).

## BARREL ROLL (PILOT)

*Space Opera*

This defensive maneuver is simple in theory, difficult in execution when one is being shot at. To make the character's ship harder to hit, he sends it into a tight spiral.

**Prerequisites:** Pilot 3+

**Effect:** The effect of this maneuver is described in the *stunts* section of the starship combat chapter. This Feat allows the character to perform the maneuver at no penalty to his Pilot skill.

**Normal:** Characters without this Feat take a -4 to their Pilot skill when performing this maneuver.

## BOMBARDIER (PILOT)

The character is an expert at bombing tactics, and is more accurate as a result.

**Effect:** The character gains a +2 to hit on any Bombing Run attack. This bonus does not apply to Dive Bomb attacks.

## BOMBARDMENT EXPERT (PILOT)

The character is an expert at using a starship's big guns to attack targets on the ground.

**Prerequisites:** Ship-to-Ship Weapon Proficiency

**Effect:** The character fires Ship-to-Ship weapons at -4 when using them to Bombard a target on the ground.

**Normal:** Characters without this feat attack at -8 when using a Starship's Weapons to bombard.

## BOUNCE (PILOT)

This defensive maneuver requires a character get close to a body that has an atmosphere. The character dips into the body's atmosphere as if to use the planet's atmosphere as an air brake, but at such a steep angle he instead bounces off the atmosphere.

**Prerequisites:** Pilot 5+

**Effect:** The effect of this maneuver is described in the *stunts* section of the starship combat chapter. This Feat allows the character to perform the maneuver at no penalty to his Pilot skill.

**Normal:** Characters without this Feat take a -4 to their Pilot skill when performing this maneuver.

## BRINKSMANSHIP (PILOT)

*Space Opera*

Brinksmanship is the very dangerous maneuver of putting your own ship in danger, forcing your opponent to follow you into that danger. It is the ultimate contest between two pilots. Flying too close to asteroids, stars, other ships, and so forth.

**Prerequisites:** Pilot 8+, 2 other piloting Feats

**Effect:** The effect of this maneuver is described in the *stunts* section of the starship combat chapter. This Feat allows the character to perform the maneuver at no penalty to his Pilot skill.

**Normal:** Characters without this Feat take a -4 to their Pilot skill when performing this maneuver.

## BUILDER (GENERAL)

You are an expert at constructing and repairing things.

**Benefit:** Pick two of the following skills: Craft (mechanical), Craft (chemical), Craft (electronic), and Craft (structural). The character gets a +2 bonus on all checks with those skills.

**Special:** The character can select this feat twice. The second time, the character applies it to the two skills he or she didn't pick originally.

## DOG FIGHTING (PILOT)

The character has mastered the basics of ship-to-ship fighting with small ships.

**Prerequisites:** Ship-to-Ship Weapons Proficiency; Pilot 3+

**Effect:** When Piloting a craft of Tiny Size (Fighters and Shuttles), the Pilot may engage in Active Defense as a free action (normally a move-equivalent action). Since firing weapons is an Attack Action, and turning a Starship is a move-equivalent action, this feat is essential to piloting Fighters in combat. Pilots and Hotshots receive this feat for free at 1<sup>st</sup> level, as long as they meet the Prerequisites.

## EDUCATED (GENERAL)

You have had higher education or training in a specific field.

**Benefit:** Pick two Knowledge skills. The character gets a +2 bonus on all checks with those skills.

**Special:** A character can select this feat as many as seven times. Each time, the character selects two new Knowledge skills.

## EXPLOSIVES EXPERT (ITEM CREATION)

The character is good enough with explosives to make grenades.

**Prerequisites:** Demolitions 4+

**Effect:** The character may make any grenade off the Equipment list with a successful Demolitions check. The DC of this check is listed on the weapons table. The character must have a Weaponsmith lab (see the Starship Facilities section), or must rent access to one at a space station. The character must also purchase the appropriate materials, which cost 50% of the weapon's cost, as listed on the equipment table. Demolitions experts are highly sought after by mining operations. A character with this feat that seeks employment as a demolitions expert may demand a salary of 75cr per point of skill in Demolitions.

## EXPLORER (GENERAL)

Exploring deep space is dangerous work. You are experienced at exploring deep space and new planets. You know how to navigate the stars and survive in new environments.

**Benefit:** The character gets a +2 bonus on all Navigate checks and Survival checks.

## FIGHTER ESCORT (PILOT)

As their ability to protect each other in air combat became apparent, 20<sup>th</sup> century strategists also recognized the Fighter's ability to protect larger, more valuable craft. Although a vital necessity at times due to the strategic value of larger ships, flying escort with a larger ship is one of the most dangerous jobs a fighter pilot can have.

**Prerequisites:** Pilot 5+, Teamwork, Formation Flying

**Effect:** A Medium or larger craft protected by a fighter escort gains a +1 Defense bonus for each fighter protecting him. Merchants seek out Fighter escorts to guard valuable Hauls. As such, characters with this feat may earn a living as escort pilots, commanding a monthly salary of 75 cr per point of skill in Pilot.

## FORMATION FLYING (PILOT)

As far back as the 20<sup>th</sup> century fighter pilots have known the advantages of flying in formation. One craft covers for the other, and a character's wingman is usually the person he trusts most in the universe.

**Prerequisites:** Pilot 5+, Teamwork

**Effect:** All Fighters on the same side of a battle who are flying in formation with this feat gain +2 Defense in Starship combat by protecting one another. Also, any pursued craft attempting a Trailing Contest gets the benefit of two rolls: one by the pursued pilot, and one by his wingman, taking the more favorable of the two rolls.

## HEAL FRENZY (GENERAL)

Sometimes the casualties start to mount and there's not enough time to save everyone. You are trained to administer medical treatment in a frenzied but effective way, allowing you to save lives quickly.

**Perquisite:** Treat Injury 5+

**Benefit:** If you successfully stabilize a character, you may move to another dying character and make an additional stabilizing attempt. You may continue to make stabilizing attempts until you fail your check or cannot move anymore.

## HOT SHOES (PILOT)

The Pilot dips his craft into a Body's Atmosphere, and then employs his Hot Shoes, slowing his craft tremendously (causing his Pursuer to shoot past him).

**Prerequisites:** Pilot 5+, Bounce, craft must have Hot Shoes (advanced aerobrakes) installed

**Effect:** The effect of this maneuver is described in the *stunts* section of the starship combat chapter. This Feat allows the character to perform the maneuver at no penalty to his Pilot skill.

**Normal:** Characters without this Feat take a -4 to their Pilot skill when performing this maneuver.

## IMMELMAN (PILOT)

*Space Opera*

This dangerous loop-to-loop maneuver allows a trailed pilot to get the drop on his opponent, turning the tables on him. This maneuver violates the laws of physics, as we know them, allowing a spacecraft to overcome its momentum, and is only appropriate for space opera genre games. "Hard" Sci-Fi games should stay away from this maneuver.

**Prerequisites:** Pilot 5+, Barrel Roll

**Effect:** The effect of this maneuver is described in the *stunts* section of the starship combat chapter. This Feat allows the character to perform the maneuver at no penalty to his Pilot skill.

**Normal:** Characters without this Feat take a -4 to their Pilot skill when performing this maneuver.

## IMPROVED SEARCH (GENERAL)

The character has advanced training in the finding of traps, security devices, and hidden compartments.

**Effect:** The character's Search skill will reveal items with a DC over 20.

**Normal:** Only Smugglers can find items with a Search DC of over 20.

## JAMMING (GENERAL)

You are trained in the art of electronic warfare.

**Effect:** The Effect of this maneuver is described under the Communications Operations skill. This Feat allows the character to perform Jamming at no penalty to his Communications Operations skill.

**Normal:** Characters without this Feat take a -4 to their Communications skill check when Jamming.

## LEADERSHIP (GENERAL)

The character is able to engender personal loyalty among those who follow him.

**Prerequisites:** 6<sup>th</sup> Level

**Effect:** In addition to its normal effect, allowing a character to have a personal retinue and perhaps a cohort, this feat also grants a character extra benefits when commanding *crew units* (see the Starship Crews section for more information). Units commanded by a character with this feat ignore the first Morale Hit (see the Starship Combat chapter for more information on crew hits) they suffer in combat.

Characters with this feat may attract more experienced crew. Note that the numbers on the table below are not the maximum number the character can have, just the maximum number of crew above Green the character can attract.

## LINGUIST (GENERAL)

Some people have a knack for languages, and pick them up easily as they travel.

**Effect:** The character receives Intelligence Modifier +2 starting languages. As the character advances in level, he receives a new language automatically every other level (in effect the character is adding his level to his Intelligence score to determine languages known). In star empires spanning several systems, and composed of many different races, Linguists are necessary members of any diplomatic corps. A character with this feat may earn 75cr per point of skill in Profession (Linguist) plus 75cr for each language each month.

**Normal:** Characters normally know a number of languages equal to their Intelligence Modifier, and may only learn more languages than that by spending skill points.

## LOW-G MANEUVERING (GENERAL)

The character is practiced at moving and fighting effectively in gravities from .8 to .1 G. Characters with no special training have a hard time moving, much less fighting, in low gravity.

**Effect:** The character operates in these environments with no penalty to Attack or Skill checks, and moves at Full Speed.

**Normal:** Characters without this feat move at ½ Speed and suffer -4 to Attack and Skill checks, modified by their



Leadership	Level	Raw	Green	Inexp	Average	Exp	Crack	Legendary
2	1 <sup>st</sup>	Any	-	-	-	-	-	-
3	2 <sup>nd</sup>	Any	-	-	-	-	-	-
4	3 <sup>rd</sup>	Any	-	-	-	-	-	-
5	3 <sup>rd</sup>	Any	-	-	-	-	-	-
6	4 <sup>th</sup>	Any	-	-	-	-	-	-
7	5 <sup>th</sup>	Any	-	-	-	-	-	-
8	5 <sup>th</sup>	Any	-	-	-	-	-	-
9	6 <sup>th</sup>	Any	-	-	-	-	-	-
10	7 <sup>th</sup>	Any	-	-	-	-	-	-
11	7 <sup>th</sup>	Any	-	-	-	-	-	-
12	8 <sup>th</sup>	Any	-	-	-	-	-	-
13	9 <sup>th</sup>	Any	1	-	-	-	-	-
14	10 <sup>th</sup>	Any	1	-	-	-	-	-
15	10 <sup>th</sup>	Any	2	1	-	-	-	-
16	11 <sup>th</sup>	Any	2	1	-	-	-	-
17	12 <sup>th</sup>	Any	3	1	1	-	-	-
18	12 <sup>th</sup>	Any	3	1	1	-	-	-
19	13 <sup>th</sup>	Any	4	2	1	1	-	-
20	14 <sup>th</sup>	Any	5	3	2	1	-	-
21	15 <sup>th</sup>	Any	6	3	2	1	1	-
22	15 <sup>th</sup>	Any	7	4	2	2	1	-
23	16 <sup>th</sup>	Any	9	5	3	2	1	-
24	17 <sup>th</sup>	Any	11	6	3	2	1	-
25+	17 <sup>th</sup>	Any	13	7	4	2	2	-

Dex. Modifier. So, for example, a character with a 12 Dex (+1 Dex. Modifier) would have a -3 to Attack and Skill checks in Low G conditions. Also, if a character without Low-G Maneuvering fails a Reflex saves, he is considered *flat-footed* until the start of his next action.

## MEDICAL EXPERT (GENERAL)

Space travel is dangerous, and injury is often a certainty, but you have special gift at making sure your crew comes home alive.

**Benefit:** The character gets a +2 bonus on all Craft (pharmaceutical) checks and Treat Injury checks.

**Special:** Remember that the Craft (pharmaceutical) skill can't be used untrained.

## PANIMMUNITY (GENERAL)

One of the wonders of modern Genetics is the complete eradication of all genetic diseases, and the ability to strengthen the immune system. This has resulted in a marked increase in life span and overall health.

**Effect:** If the character encounters any normal human disease requiring a Save during the course of an adventure, the character does not have to save, he is immune. Due to the bolstering of the immune system, if the character encounters an exotic disease, even an Alien one, he receives a +4 bonus to his Save.

## SHIP-TO-SHIP WEAPONS PROFICIENCY (GENERAL)

The character is trained in firing long-range weapons in ship-to-ship combat. See the Starships Chapter for a list of Ship-to-Ship Weapons.

**Effect:** The character may make attack rolls with the weapons without penalty.

**Special:** Haulers, Pilots, and Smugglers are proficient in Ship-to-Ship Weapons

## SLINGSHOT (PILOT)

This maneuver involves moving closer to a gravity well (usually a planet or large asteroid) in order to gain speed. While any character can fly toward a gravity well to gain a boost in speed, characters with this maneuver suffer no chance of getting trapped in the gravity well.

**Prerequisites:** Pilot 3+

**Effect:** This maneuver requires a Pilot check to execute successfully. The DC of this maneuver is equal to the Strength of the gravity well. If this skill is successful, the pilot gains +1 to his Acceleration for each two points by which his skill check exceeds the DC. The maximum bonus that can be gained in this way is equal to ½ the Strength of gravity well. If this skill check is failed, the ship actually loses Acceleration equal to ½ the gravity

well's strength for 1-3 rounds as the pilot fights against the object's gravity, correcting his course.

## STARSHIPS (ITEM CREATION)

The character is proficient at creating starships.

**Prerequisites:** Craft (mechanical) 8+, Craft (structural) 8+

**Effect:** The character may build starships hulls, drives, and facilities. There are still many components of a starship that this feat does not grant the ability to create such as weapons, defense systems and computers.

The character must craft the individual elements of the starship such as its hull, drive, and facilities. The character must also purchase the appropriate materials, which cost 50% of the starship component's price. This skill also allows a character, if he wishes to earn his living as starship builder, to earn a monthly salary of 200cr per point of skill in Profession (starship builder).

## SURGERY (GENERAL)

You are a trained surgeon.

**Prerequisite:** Treat Injury 4 ranks.

**Benefit:** The character can use the Treat Injury skill to perform surgery without penalty.

**Normal:** Characters without this feat take a -4 penalty on Treat Injury checks made to perform surgery.

## TACTICIAN (TACTIC)

The character has been trained in tactics, and is able to lead a small group in combat.

**Prerequisite:** Int 13+, Cha 13+

**Effect:** The character adds her Int. modifier to either the attack rolls or initiative rolls of those she is leading. A character may lead a number of characters equal to her Cha modifier.

**Special:** If the character has the Teamwork Feat, she gains double the above bonuses when leading members of her Team (double her Int. and Cha. Bonuses), and may lead twice as many teammates.

## TACTICIAN, SQUAD/ SQUADRON (TACTIC)

The character has mastered the art of large-scale maneuvers. For ground combat this feat covers Squad tactics. For fighters this feat covers Squadron tactics.

**Prerequisites:** Tactician

**Effect:** The character may lead a number of *Crew Units* (see the Starship Crew section for more information) equal to her Charisma modifier, granting those units a bonus in crew contests equal to his Intelligence Modifier.

## TACTICIAN, UNIT/WING (TACTIC)

The character has the logistical knowledge and command experience to effectively command extremely large groups in battle.

**Prerequisites:** Cha 15+, Tactician - Squad (for Tactician - Unit) or Tactician - Squadron (for Tactician - Wing)

**Effect:** A character with this feat may command a number of Crew Units equal to twice his Charisma modifier, granting those units a bonus in crew contests equal to twice his Intelligence Modifier.

## TACTICIAN, BATTALION/FLEET (TACTIC)

The character is able to command armies or armadas into battle, leading large-scale engagements due to his training in logistics and military history.

**Prerequisites:** Int 15+, Tactician - Unit (for Tactician - Battalion), or Tactician - Wing (For Tactician - Fleet)

**Effect:** A character with this feat grants a bonus equal to his Intelligence modifier to *all* crew under his command for all Crew checks. This bonus is stacks with the bonuses granted to specific units by individual commanders.

## TEAMWORK, SPECIFIC GROUP (TACTIC)

This Feat represents extensive training in small unit tactics. When the character takes this feat, he chooses one group for it to work with. Examples might be the Imperial Marines, the "A-Group" fighter squadron, or the Black Sail pirates.

**Effect:** Whenever the character is in an engagement with someone with the Teamwork feat for the same team, he gains +2 to attack and skill checks.

## TEAMWORK, NON-COMBAT (TACTIC)

This Feat represents extensive training in teamwork outside of combat. When the character takes this feat, he chooses one group of skills for it to work with, such as medical skills.

**Effect:** Whenever two or more characters with this feat are working together on the same problem, they each gain a +4 to all skill checks. So two engineers working together to repair an engine, or two doctors operating on the same patient, would each receive the bonus.

## TRAILING (PILOT)

This maneuver is the coup de grace of any dogfight. If one character manages to get into a Trailing position, directly behind her opponent, she's going to win.

**Prerequisites:** Pilot 2+

**Effect:** This maneuver is really a piloting contest. The defending pilot (the one in the front position) makes a piloting check. This is the DC of the Trailing maneuver, which must be met for the attacking pilot to be considered Trailing her opponent.

The pilot of the faster craft gets to add a bonus to

her piloting skill equal to the difference between the Acceleration of her craft and that of her opponent. If successful, the attacker immediately gains an Attack of Opportunity, and the defender is considered Flat-Footed (A “Flat-Footed” Pilot cannot actively defend, and thus does not get to add his piloting skill to his Ship’s Defense). As long as the attacker successfully trails her opponent, the defender is Flat-Footed.

## WEALTHY (GENERAL)

Characters with this feat were either born into extremely wealthy families (if they take the feat at first level), or have come into a great deal of money (if they take this feat later).

**Effect:** The character receives +100% starting money. Characters with this feat also receive a monthly stipend of 1,000cr.

**Special:** This feat can be taken multiple times. Each time the character does so he receives +100% starting money (if taken at first level), as well as increasing his monthly stipend by +1,000cr.

## WEAPONSMITH, PERSONAL (ITEM CREATION)

The character is skilled enough to make personal weapons

**Prerequisite:** Craft (mechanical) 4+

**Effect:** The character may make any personal Weapon (see the equipment chapter for more information). The DC of this check is listed on the weapons table. The character must have a Weaponsmith lab (see the Starship Facilities section), or must rent access to one at a space station. The character must also purchase the appropriate materials, which cost 50% of the weapon’s cost, as listed on the equipment table. Weaponsmiths being highly sought after, characters with this feat may command a monthly salary of 100cr per point of skill in Profession (Weaponsmith).

## WEAPONSMITH, SHIP (ITEM CREATION)

The character is skilled enough to make ship weapons

**Prerequisite:** Craft (mechanical) 8+

**Effect:** The character may make any ship weapon (see *starship construction* for more information). The DC of this check is listed on the weapons table. The character must have a Weaponsmith lab (see the Starship Facilities section), or must rent access to one at a space station. The character must also purchase the appropriate materials, which cost 50% of the weapon’s cost, as listed on the weapons table. Starship weaponsmiths being highly sought after, characters with this feat may command a monthly salary of 150cr per point of skill in Profession (Weaponsmith).

## WINGMAN (PILOT)

The character is one of the most valuable commodities in the solar system: an expert wingman.

**Prerequisite:** Pilot 10+, Teamwork, Formation Flying

**Effect:** The character grants his partner a +4 Def bonus in Starship combat. Also, if a missile is about to hit the wingman’s partner, he may attempt an attack of opportunity to shoot the missile before it strikes.

## YAW AND LIGHTEM (PILOT)

Yaw and Lightem is a definite “hotshot” maneuver and a big reason why so few old Pilots exist. The character sends his craft into a controlled 360-degree spin, allowing him to catch a pursuer in the sights of his forward weapons. The Pilot then rides the turn out, and resumes his original course, leaving the smoking husk of his opponent for the scavenger trawlers.

**Effect:** The effect of this maneuver is described in the *stunts* section of the starship combat chapter. This Feat allows the character to perform the maneuver at no penalty to his Pilot skill.

**Normal:** Characters without this Feat take a –4 to their Pilot skill when performing this maneuver.

## ZERO-G MANEUVERING (GENERAL)

The character is practiced at moving and fighting effectively in micro gravity (less than .1 G, also called “zero G”). The character is practiced at moving and fighting effectively in micro gravity. Characters with no special training will be spending all their time trying to stay oriented. If a character without experience or training in micro gravity gets involved in a fight, he doesn’t stand much of a chance. Even if his opponent doesn’t kill him, the character could send him spinning off into infinity by not adjusting for the recoil of his weapon.

**Prerequisites:** Dex 13+, Low-G Maneuvering

**Effect:** The character operates in these environments with no penalty to Attack or Skill checks, and is able to deal with weapons that have recoil more effectively. The character must still make a Reflex Save to use a weapon with Recoil, but he suffers only half the normal Recoil penalty to his Save, and is only considered Flat-Footed if he fails, not prone.

**Normal:** Characters without this feat move at 1/4 Speed, suffer -6 to Attack and Skill checks, modified by their Dex Modifier. Also, if the character is using a weapon with a *Recoil Rating*, he must make a Reflex Save each round he attacks with that weapon (DC 15, modified by the weapon’s Recoil), or be considered prone, floating away in a random direction each round until he is able to either grab onto a solid object or make a Balance check (DC as above +5) to right himself. Also, if the character is forced to make a Reflex save for *any* reason and fails, he suffers the above result.



## CHAPTER 4: EQUIPMENT

Lieutenant Cook looked out in awe at the field of debris that lay before them. Admiral Antilles had ordered the *Repulse* to slow to a crawl as it entered this area. “What is this,” she asked, eyes never leaving the screen as the enormous ship moved through wrecked ships, and even the occasional body. “It’s a graveyard,” intoned Science Officer Lewis, “from the Diaspora War.” Finally, the Lieutenant turned around, “Didn’t you fight in the Diaspora War Admiral?” But the bridge was silent, the Admiral lost in his own thoughts.

Ensign Niles Antilles stood just inside the airlock, listening to the laser cutters humming outside. These rebels were much better armed than any of them dreamed. Vac Suits, IR Rifles, Magnetic Grapples, Laser Cutters. Their ships too, had been better equipped than expected, and the *Antietam* was now a flaming husk. The whirring grew louder from outside. The Ensign, now the ranking officer on board the ship, turned around, and watched as Private First Class Callenda passed weapons out to the assembled Engineering, Helm, and Science crewmen left aboard the vessel. A silence descended over the group as they all looked expectantly at him. ‘*Oh crap,*’ he thought, ‘*they expect me to say something.*’

Clearing his throat, with the humming getting louder in the background, the young man looked over the

faces of his peers. “These ‘immigrants’, as they call themselves, attacked us without provocation under a flag of peace. Someone also has given them a lot of expensive equipment. If we give-in—surrender—die, no one will know. We’ll be a statistic on a report back at Fleet. I don’t know about any of you, but I do not want to be a statistic. I want to let the folks back home know what these animals did to us.”

A loud clang sounded from inside the airlock. They were inside...

### PERSONAL EQUIPMENT FROM OTHER D20 SOURCES

The main focus of *Blood and Space* is Starship combat and adventure. There’s a wide range of sources for d20 science fiction weapons and equipment. We encourage game master to supplement the listed items with additional d20 sourcebooks. The weapons and equipment below is but a sampling of the endless possibilities. They are meant only to give you a base level of gear to equip your characters for space based adventures and encounters.

### THE CREDIT AND BARTERING

In *Blood and Space*, the credit is the standard monetary unit. Credits have no physical representation. Currency is either barter (for the most primitive regions of the frontier), or completely electronic. There is no middle economic ground to be had.

Barter is the trade of two items of relatively equal value. In game terms this means the items are with 10% of the price or value of each other. The Merchant skill can be used for Haggling purposes, with a skill check, DC 15, allowing a character to barter within 15%. A skill check of 20 means Barter within 20% value can take place, and so on.

Barter can take the form of service rather than the trade of physical objects. If a person needs a skill the character possesses, such as a craft check to fix a piece of damaged equipment, he might be willing to trade something of an equal value to the object being repaired (in essence the character is getting the object back for him by repairing it). Bartering for service is strictly within the GM’s discretion



## STARTING CREDITS

**Doctor:** 8d6x10cr  
**Engineer:** 6d6x10cr  
**Hauler:** 10d6x10cr  
**Hotshot:** 6d6x10cr  
**Marine:** 8d6x10cr  
**Mercenary:** 7d6x10cr  
**Scientist:** 6d6x10cr  
**Smuggler:** 8d6x10cr  
**Starship Officer:** 8d6x10cr  
**Starship Pilot:** 8d6x10cr

## MODIFIER FOR PROFESSION SKILL:

In addition to the standard starting money each character receives based on class, characters also receive an amount of funds equal to 100cr times their highest Profession skill. If the character actually wishes to continue in this field as his *job* (blech) he also receives a monthly wage equal to 50cr times his highest Profession skill, some Professions pay more if the character has received specialized training (involving a feat). The amount a character can make working in these lucrative professions is listed in the feat descriptions. While this may be very helpful to the adventurer on a budget (especially one with a leased Starship to try and pay for), it will limit the character's adventuring range and time. Most characters will find more profit in exploring the unknown than punching a clock.

## MODIFIER FOR CHARISMA

Characters who are glib and outgoing just do better in life. People notice their accomplishments more, which leads them to get promoted more often, also, they can persuade people that their way is best, which leads to more grant funding and so forth. Likewise, a brilliant scientist who never speaks up at meetings is going to be thought of as average whether he's the best in his field or not. A character gains a bonus/penalty to his starting money equal to 100 times his Charisma modifier.

## PERSONAL ARMS

The advance of weapons technology could be described, in general terms, as the desire to kill your opponent from as far away as possible. Each advancement moved the attacker further and further away from his target. However, in every battle, in every war, there comes a time when combat gets close. Personal. This chapter will help prepare characters for those times.

### 9MM CASELESS PISTOL

These small, inexpensive weapons have been in service since the 20<sup>th</sup> century. Made of plastic, cheap and

disposable, these weapons fire bullets encased in a synthetic gel rather than a metal casing.

### 9MM CASELESS SMG

A slightly more potent version of the 9mm Pistol, and firing the same ammunition.

### BATON

A club with a rubber grip, this weapon has been in use in police forces since the 19<sup>th</sup> century.

### BRASS KNUCKLES

This weapon has no damage of its own, just a modifier to the attacker's normal HTH damage.

### CARTRIDGE RIFLE

Another primitive weapon still in use, this is nothing more or less than a bolt-action single shot rifle that has seen service since WWI. This weapon may not fire more than once a round and suffers -2 to hit in micro gravity (as the attacker tries to keep floating shell casings out of his way).

### CHAINKNIFE

A knife-sized chainsaw with a sword handle, this weapon represents the vicious nature technology has lent to modern HTH combat. Many military men and corporate security forces carry these terrible weapons.

### CHAINWORD

A larger, nastier version of the Chainknife, this weapon is one of the most terrible HTH weapons of the future.

### GRAVITIC STUNNER

This weapon raises the gravity around the target by 1G for less than second. Even though the duration of this gravity shift is extremely brief, it is a shock to the internal organs of the target, who must make a Fortitude save (DC 15), or be stunned for 1-6 rounds.

### GRENADE, FLASH

This weapon releases a blinding flash in a 30 ft. radius when it explodes. Anyone caught in this radius must make a Fortitude Save (DC15) or be blinded for 1d6 rounds. If the attacker confirms a critical with this weapon, then the victim fails their Save, it blinds the target for 1d6 *days*. This blindness may be cured with a successful Medicine skill check (DC 20).

### GRENADE, FRAGMENTATION

This weapon inflicts its listed damage in a 30 ft. radius. Anyone caught in the blast radius may make a Reflex save for ½ damage.

**TABLE 4-1: PERSONAL WEAPONS**

Simple Weapons- Melee						
Weapon	Cost	Damage	Critical	Range Inc	Ammo	Type
Baton	20cr	1d6	20	-	-	Phys
Brass Knuckles	20cr	+2	20	-	-	Phys
Shock Glove	75cr	1d6	20	-	6	En
AP Pack (6)	30cr					
Stiletto	40cr	1d4	19-20	10 ft.	-	Phys
Strike, Unarmed	-	1d3S	-	-	-	Phys
Simple Weapons-Ranged						
Weapon	Cost	Damage	Critical	Range Inc.	Ammo	Type
9mm Caseless Pistol	50cr	1d6	19-20	75 ft.	9	Phys
Clip (9)	10cr					
9mm Caseless SMG	75cr	1d8	19-20	50 ft.	30	Phys
Clip (30)	30cr					
Cartridge Rifle	75cr	1d12	20	150 ft.	1	Phys
Cartridge Shells (50)	50cr					
Grenade, Flash	100cr	*	20	Str Modx10 ft.	1	Light
Grenade, Glitter	100cr	*	*	Str Modx10 ft.	1	*
Grenade, Fragmentation	100cr	6d6	20	Str Modx10 ft.	1	Phys
Grenade, Smoke	50cr	*	*	Str Modx10 ft.	1	*
Grenade, Sonic	100cr	2d6	20	Str Modx10 ft.	1	Sonic
Sonic Pistol	100cr	1d6	20	100 ft.	6	Sonic
AP Pack (6)	30cr					
Taser	100cr	*	*	*	1	En
Martial Weapons-Melee						
Weapon	Cost	Damage	Critical	Range Inc.	Ammo	Type
Chainknife	100cr	1d10	20	-	6	Phys
AP Pack (6)	30cr					
Chainsword	150cr	1d12	19-20	-	10	Phys
AP Pack (10)	50cr					
Shock Baton	100cr	1d8	20	-	10	En
AP Pack (10)	50cr					
Martial Weapons-Ranged						
Weapon	Cost	Damage	Critical	Range Inc.	Ammo	Type
Gravitic Stunner	150cr	2d6	20	50 ft.	10	Phys
AP Pack	50cr					
Grenade Launcher	500cr	*	*	200 ft.	1	*
IR Laser Pistol	150cr	2d10	18-20	100 ft.	20	En
AP Pack (20)	100cr					
IR Laser Rifle	200cr	3d10	18-20	200 ft.	50	En
AP Pack (50)	250cr					
X-Ray Laser Pistol	200cr	3d8	19-20	100 ft.	10	Rad
AP Pack (10)	100cr					
X-Ray Laser Rifle	400cr	4d8	19-20	200 ft.	25	Rad
AP Pack (25)	250cr					



**Exotic Weapons-Melee**

Weapon	Cost	Damage	Critical	Range Inc.	Ammo	Type
Laser Garrote	750cr	2d10	Special	-	10	En
AP Pack (10)	50cr					
Laser Lash	750cr	3d10	18-20	-	10	En
AP Pack (10)	50cr					

**Exotic Weapons-Ranged**

Weapon	Cost	Damage	Critical	Range Inc.	Ammo	Type
Tesla Rifle	5Kcr	6d6	20	50 ft.	10	En
AP Pack (10)	100cr					

**GRENADE, GLITTER**

When this grenade explodes, it throws up a cloud of light refracting particles in a 30' radius. This cloud lasts for 2d6 rds, half this amount of time in high winds. Anyone in this radius (friend or foe) gains 90% concealment against any laser weapon.

**GRENADE, SMOKE**

This weapon creates a 30' radius cloud of smoke, which grants 90% concealment to everyone (friend and foe) in this radius. This cloud lasts 2d6 rds, half this amount of time in high winds.

**GRENADE, SONIC**

This weapon, unlike most grenades, inflicts its damage in a 60' radius. A Reflex save (DC 15) reduces this damage by ½. If this save is failed, the character is also Deafened for 1d6 rds. If the attacker confirms a critical with this weapon, then the victim fails their Save, it Deafened the target for 1d6 days. This deafness may be cured with a successful Medicine skill check (DC 20).

**IR LASER PISTOL**

This is your basic laser weapon. This weapon possesses many advantages over older weapons. It is silent and invisible, and has no recoil, which makes this a perfect weapon for combat in Zero Gravity.

**IR LASER RIFLE**

As with the pistol version, only able to fire over a longer distance, and it has a larger power pack.

**LASER GARROTE**

This assassin's weapon creates a field of coherent energy between the two handles of the weapon. If the attacker catches his target unawares (flat-footed or surprised), then any hit with this weapon is considered a critical.

**LASER LASH**

Very rare, very expensive, very difficult to use, this weapon is extremely potent in the hands of a skilled wielder. When activated, the fiber-optic cord that makes

up the business end of this weapon is charged with enough energy to affect anyone hit with it like a laser hit.

**SHOCK BATON**

This weapon is a metal baton with a rubber handle, which is electrified when activated.

**H-RAY LASER PISTOL**

This weapon shares all the advantages of the IR Laser. However, it is far more dangerous, as it damages the target not only with heat, but radiation as well.

**H-RAY LASER RIFLE**

This weapon is like its smaller cousin, only able to fire over a longer distance, and with a larger power pack.

**SHOCK GLOVE**

This weapon allows the attacker to deliver an electric shock to his target on touch.

**SONIC PISTOL**

In addition to normal damage, anyone hit with this weapon must make a Fortitude save (DC 15) or be Deafened for 1d6 rds. If the attacker confirms a critical with this weapon, then the victim fails their Save, it deafens the target for 1d6 days. This deafness may be cured with a successful Medicine skill check (DC 20).

**STILETTO**

These weapons are small, easily concealed, and made of plastic. This makes the stiletto the perfect concealed weapon.

**TASER**

This weapon has a maximum range of 10 feet. This weapon will only affect a target with less than 5 Physical DR. This weapon fires several tiny electrodes into the target, which are then charged with a powerful electric jolt, which sends the target into convulsions. Anyone hit with a Taser must make a Fort save (DC 15) or be rendered prone and helpless for 1-6 rds.

## TESLA RIFLE

A rare and dangerous weapon, it is illegal in non-military hands. These weapons are usually found only in the hands of Special Forces units such as the Black Stars. This weapon, through focused magneto induction, creates a controlled lightning stream. Anyone hit by this weapon may make a Reflex save for ½ damage. The listed price for this weapon is for illegal purchase on the black market. If purchased legally (which would only be allowed in rare cases), the price of this weapon would “only” be 1,000 cr.

## WEAPON ATTACHMENTS

What a weapon is made of, and what attachments it has, can be the difference between a good weapon and a lousy weapon. An M-16 is a great weapon, but not if its sights are misaligned. For melee weapons, these “attachments” are usually alternate materials that make the weapon sharper or lighter. Missile weapons, especially guns, have dozens of attachments to make them more deadly.

## ARMOR

Throughout history, there has been an arms race between Armorsmiths and Weaponsmiths. As technology makes the battlefield more and more deadly, armor strives to keep soldiers alive. In the 24<sup>th</sup> century, armor must not only protect combatants from enemy attack, but also from a harsh environment as unforgiving as any weapon. The new generation of Powered Armor, and the even more sophisticated and deadly Orbital Armors, allow soldiers to not only travel through the void of space without fear, but return mobility to the battlefield, by granting the ability to launch surprise attacks, dropping troops from orbit to attack without warning. A Troop Mobility Platform, one

of the new breeds of UEG Military ships, is capable of deploying a thousand men from orbit onto a ground-based target in less than 15 minutes.

*Blood and Space* allows combatants to stack certain kinds of armor together. All armor in the above lists may be combined with a helmet. A Helmet may be worn with any non-powered armor as well, and its penalty to Spot and Listen applies normally.

## ABLATIVE HEAT SHIELD

The Ablative Heat Shield is an eggshell shaped one-piece ceramic that is cast whole around a soldier wearing Orbital Insertion Armor before he is dropped from the launch bay of a ship. Called a “white coffin” by Spaceborne units, the Ablative Heat Shield is the key to Orbital Insertion, allowing troops to survive a free fall reentry. The Shield is aerodynamic both to reduce friction, and also to get soldiers through the atmosphere as quickly as possible. After the Spaceborne troops clear the atmosphere, they simply burst out of the cracked and brittle ceramic shield, then free fall headfirst until above their target, after which they fire retro-thrusters to slow their fall.

## ABSORB-GEL SUIT

This armor is composed of thick clothing filled with a synthetic, impact- and heat-absorbing gel. While the liquid adds to the weight of the armor and sometimes makes maneuvering in it difficult, it does a good job of shielding the wearer from some of the impact from a wide variety of attacks.

## BLACK HELM

With the increasing popularity and damage potential of blinding and sonic weapons, the Black Helm was designed as the first attempt to protect soldiers from these attacks. The only drawback of these protective devices is that they tend to make the wearer easier to surprise.

**TABLE 4-2: WEAPON ATTACHMENTS**

Weapon Attachments-Melee		
Attachment	Cost	Effect
Plasteel	+350cr	Weapon is +1 to hit, and does not show up in weapons scan
Weapon Attachments-Ranged		
Attachment	Cost	Effect
10x Scope	50cr	Ignore first Range Increment
50x Scope	150cr	Ignore first two Range Increments
Sniper Scope	300cr	Ignore all Range Increments
Night Scope	+100cr	Grants Darkvision to attacker
Laser Target	100cr	+2 Attack rolls
Silencer	50cr	-2 Attack rolls, Listen check required to hear gunfire
Thumbprint Grip	100cr	Gun will only fire for one registered owner

## BOARDING ARMOR

Boarding actions are frequently necessary in space combat. Capturing enemy leaders for interrogation, arrest of smugglers for trial and punishment, even capture of a ship so it may be added to a fleet are all potent tactical reasons why the boarding action has remained a vital strategy to space combat. This armor is sealed, containing an ALSS with a 12-hour air supply, a built-in magnetic grapple and magnetic boots to allow soldiers to conduct lightning quick boarding actions.

## CHAMELEON ARMOR

This armor was designed for special operations soldiers. The armor is extremely light; servomotors aid mobility to the point that this armor does not slow the wearer down at all. Chameleon Armor is sealed providing protection from sonic, blinding and radiation as well as physical and energy damage, has a 24 hour air supply (through a micro ALSS), and grants the wearer Darkvision out to 60 feet. Like all Armors built for Vacuum, Chameleon Armor reseals automatically if punctured or torn, keeping the internal pressure intact. As if that wasn't enough, a

genetically engineered living "skin" grafted to the outside of the armor changes coloration to match the background, granting a +4 Circumstance Bonus to Hide checks.

## ISO-HELM

Like the Black Helm and Sandbag Helm, this helmet provides protection against sonic and blinding attacks, at the expense of shielding the character from things he might *want* to hear (such as approaching enemies).

## FLAK SUIT

This basic combat gear has changed very little since the middle of the 20<sup>th</sup> Century.

## FLIGHT SUIT

A basic necessity for anyone involved in space combat, the Flight Suit not only provides some protection against weapons fire, it also provides some protection against radiation (in case the ship's radiation shielding is damaged). This armor also provides its wearer with a one-hour air supply due to a built in micro ALSS.

**TABLE 4-3: ARMOR**

Light Armor	Cost	Def	Max Dex	Armor Penalty	Speed
Light Flak	30cr	+2	+8	0	30 ft.
Second Skin	15cr	+1	+8	0	30 ft.
Prism Vest	50cr	+2	+6	0	30 ft.
Flight Suit	60cr	+2	+4	-2	30 ft.
Black Helm	30cr	+1*	+8	-2*	30 ft.
Medium Armor	Cost	Def	Max Dex	Armor Penalty	Speed
Prism Cloak	75cr	+3	+5	-3	20 ft.
Flak Suit	50cr	+3	+2	-5	20 ft.
Vac Infantry	100cr	+3	+3	-4	20 ft.
Absorb-Gel Suit	80cr	+4	+3	-4	20 ft.
Sandbag Helm	50cr	+2*	+5	-3*	30 ft.
Heavy Armor	Cost	Def	Max Dex	Armor Penalty	Speed
Prism Plate	200cr	+7	+0	-7	20 ft.
Vac Assault	300cr	+6	+0	-7	20 ft.
Iso Helm	100cr	+3*	+0	-5*	30 ft.
Powered Armor	Cost	Def	Max Dex	Armor Penalty	Speed
Boarding Armor	1,000cr	+7	+5	-3	20 ft.
Servo Armor	1,500cr	+6	+6	0	30 ft.
Chameleon Armor	1,500cr	+5	+8	0	30 ft.
Orbital Armor	Cost	Def	Max Dex	Armor Penalty	Speed
Scout Armor	3,000cr	+8	+5	-3	20 ft.
Orbital Insertion Armor	10,000cr	+10	+5	-3	30 ft.
Ablative Heat Shield	5,000cr	-	-	-	0 ft.

\*Helmets add their Def bonus to the saving throw from a blinding or deafening attack, and subtract their Armor Check Penalty from Listen and Spot checks only.



**TABLE: 4-4: MISCELLANEOUS PERSONAL EQUIPMENT**

Name	Cost	Effect
Magnetic Boots	100cr	+5 Boarding
Magnetic Grapple	250cr	+10 Boarding, allows retries on Boarding skill checks
Night Vision Goggles	100cr	Darkvision 60 ft.
Portable ALSS	150cr	Portable Life Support unit
Power Lamp	50cr	Light out to 200 ft.
Sealed Shelter	1,000cr	Portable Vacuum Sealed Shelter

**LIGHT FLAK**

This basic combat gear has changed very little since the middle of the 20<sup>th</sup> Century.

**ORBITAL INSERTION ARMOR**

This recent innovation has changed the way combat is conducted. This armor, when combined with an Ablative Heat Shield allows troops to be dropped from orbit, reducing risk to valuable Starships, which tend to maneuver like rocks in atmosphere. The retro-thrusters on the suit can only be fired once before needing to be recharged, so this armor does not provide flight, only the means to conduct surprise raids. This armor contains an ALSS unit providing a 24-hour air supply, a built-in magnetic grapple, and magnetic boots.

**PRISM CLOAK**

The Prism Cloak is a full-length hooded cloak studded with hundreds of tiny crystals that serve to refract, diffuse and lessen the damage of laser weapons. The cloak is insulated with non-conductive materials so it defends against electrical attacks as well.

**PRISM PLATE**

The Prism Plate has the same refracting crystals as a Prism Cloak, set into reinforced Kevlar with Plasteel inserts.

**PRISM VEST**

The Prism Vest has the same refracting crystals as a Prism Cloak, sown into a long-sleeve shirt.

**SANDBAG HELM**

Like the Black Helm and Sandbag Helm, this helmet provides protection against sonic and blinding attacks, at the expense of shielding the character from things he might *want* to hear (such as approaching enemies).

**SCOUT ARMOR**

Scout Armor units make up one-tenth of any Orbital Insertion mission team. This armor provides less protection, but has much bigger batteries for the retro-thrusters, allowing flight speed of 60 ft per round for up to two hours sustained flight time. These units are then used to supply reconnaissance. Scout Armor has built

in magnetic grapple, boots and ALSS just as Orbital Insertion Armor does.

**SECOND SKIN**

Second Skin is a supple polymer one-piece suit molded to the wearer's body. It provides minimal protection, but is completely undetectable underneath clothing.

**SERVO ARMOR**

This armor is extremely heavy thick metal armor, with robotic servo motors that bear most of the armor's weight, allowing the wearer great freedom of movement. This armor has built in ALSS allowing survival in vacuum for up to 12 hours.

**VAC ASSAULT**

Vac Assault is the predecessor to Boarding Armor. A Vac Suit does not provide as much protection to the wearer, and its ALSS unit will only allow the wearer to survive in vacuum for one hour. This armor comes with magnetic boots, but a separate magnetic grapple must be used.

**VAC INFANTRY**

This is the earliest attempt at armor designed for boarding actions in space combat. It is very light, and only allows for 30 minutes survival in vacuum. This armor comes with magnetic boots, but a separate magnetic grapple must be used.

**MISCELLANEOUS PERSONAL EQUIPMENT****MAGNETIC BOOTS**

These boots produce a magnetic field, allowing the wearer to walk across metal more securely (like a starship's hull). They are essential tools for any boarding operation.

**MAGNETIC GRAPPLE**

This is a rifle-sized object that fires a powerful magnet attached to a cable. When the magnet hits a target, the cable is reeled in automatically, drawing the character close to his target. They are essential to any boarding operation.

## NIGHT VISION GOGGLES

These items allow a character to see in the dark.

## PORTABLE ADVANCED LIFE SUPPORT SYSTEM

This portable unit will provide enough air and CO<sub>2</sub> filtration to permit up to 10 man-days (one man for 10 days, 2 men for 5 days each, and so on) of breathable air to a Sealed Shelter.

## POWER LAMP

This powerful lantern casts a narrow, focused beam of light up to 200 feet away, useful for exploring.

## SEALED SHELTER

This vacuum-sealed shelter will keep a person (relatively) warm and protected from the vacuum of space, as long as he has a way to breathe (usually a portable ALSS).

## PASSAGE, PER VOYAGE, ONE WAY

These voyage prices can either be an expense, for the character looking to travel on another's ship, or a profit, for the entrepreneur who has converted his cargo hold into passenger quarters.

3 <sup>rd</sup> Class	25cr
2 <sup>nd</sup> Class	50cr
1 <sup>st</sup> Class	100cr
Each 10 LY	x2
Round trip ticket	x1.5

## TRADE

As important a reason for travel to the stars as science is trade. Trade, like war, seems destined to follow mankind wherever he wanders, to the stars and beyond. Trade not only can serve as the basis for adventures (with the characters attempting to track down a rare substance for a buyer), or the focus for the whole campaign. Running a family Hauler is not a boring or safe occupation, between pirates and privateers, many Haulers have taken to hiring mercenaries to repel boarders, even fighter escorts. The players could easily comprise this type of small up-and-coming Hauling group.

## SUPPLY-DEMAND RATIO

At the heart of the economic system is the Supply Demand Ratio (SDR). These two forces work in opposition, and in the stars, can swing wildly from one day to the next. A commodity can be incredibly hot when

a merchant leaves Port, but if his journey to takes him six months, he might find himself selling at a loss once he gets there, the demand being met by a Hauler with a faster ship. To determine this ratio, like all wonderful things in the d20 system, the GM rolls a d20, and consults the SDR Table. This gives him a base profit margin, and also the DCs to negotiate lower prices from wholesalers, and negotiate higher prices with retailers.

**SDR:** The SDR is multiplied by the purchase price to determine how much the merchant can sell his product for. Obviously, any SDR of .9 or below is to be avoided (if you sell something for .9 of its purchase price, that's called losing money).

**Negotiation DC:** This entry on the SDR table lists two Merchant DCs, one for negotiating with wholesalers, and one for negotiating with retailers. If a product is not in demand, negotiating with wholesalers to reduce their price will be easy (they will want to drop something that isn't selling like a hot rock), but negotiating with retailers to buy the product will be harder (they won't want something if they don't think they can sell it). Conversely, a wholesaler knows when he has a hot product, so getting him to lower his price will be hard. But once you have your hands on it, you can tie retailers in knots (which is always fun).

**Description:** A brief description of the major benchmarks on the table.

## EXHAUSTING DEMAND

Depending on how much of a given product the PC brings, she may satisfy all the demand herself. For each ton beyond three of the same material that the character wishes to sell, move one down the table. At some point, the Hauler might decide to save his product for the next stop on her route, where she can get a better price.

## COMMODITY MODIFIERS

Certain commodities are just more valuable than others. People need food more than they need role-playing games (Those who have gone without food to buy RPGs might disagree, but it's usually true). The list below, though obviously not exhaustive, will give some modifiers to the table above, and give the GM an idea of how much things cost. The prices are per ton, and the modifier is a modifier to the SDR table above. Note that all commodities can be, and are bought in quantities below 1 ton. This price is simply used for convenience. Half a "ton" of alcohol can be bought for 2,500 Cr, and so on. When the GM designs his campaign, he should give each colony and planet its own Import preferences, and its own exports. A colony's preferences would modify the SDR roll. These SDR modifiers are cumulative. So a colony with a strong demand for Entertainment (always a valuable commodity on lonely outposts) might have an Import modifier of +2 for Entertainment. A planet with a thriving Sports empire or HoloVid studio might provide a SDR bonus of +2 for any Entertainment exports. If a Hauler bought

entertainment at Planet B and sold it on Planet A, he would get a +4 bonus to his SDR. However, since Entertainment is in demand *everywhere* (as shown in the basic modifiers below), the Hauler would also receive the +4 bonus that Entertainment always gets, for a final +8 on his SDR roll.

**Alcohol (5Kcr; +0):**

Since the most common crop brought with the colonists was various kinds of grains, beer is a *very* common product. This commodity includes alcoholic beverages that cannot be grown on star bases and starships, such as Wine, Champaign, and most hard liquors.

**Basic Food Stuffs**

**(1Kcr; -4):** Most colonies are self-sufficient, growing their own wheat, corn, soy, and using these plants to produce oxygen and remove carbon dioxide. However, there are some areas where even basic foodstuffs cannot be grown, and even in stations that ARE self-sufficient, crops occasionally fail.

**CO2 Scrubbers (4Kcr; +2):** Although the ALSS is more efficient (and cheaper), old-fashioned oxygen tanks and their companion CO2 scrubbers (which remove carbon dioxide before it can build up to a dangerous level) are still used in many older ships and installations.

**Entertainment (3Kcr; +4):** Entertainment is in constant demand. Boredom is the chief adversary of workers throughout the solar system. This category includes movies, televiD programs, computer games, and even pornography (a staple luxury item for any mining colony).

**Exotic Foods (2Kcr; +2):** Astronauts today list missing favorite foods as their number one complaint. In artificial environments, some foods simply cannot be grown effectively. This has led to a market for foods that can only be grown on Earth-like planets. This category includes all Seafood and Beef products, Coffee, Chocolate, Olives, and anything else the GM might decide people want that could not be grown in space.

**Fiber Optic Cable (2Kcr; +2):** This valuable commodity is one of the main exports of many lonely outposts and space stations, as it is much easier to make in micro gravity than on a planet.

**TABLE 4-5: SUPPLY DEMAND RATIO**

Roll	SDR	Negotiation DC	Description
1	.1	11/29	Glut
2	.2	12/28	
3	.3	13/27	
4	.4	14/26	
5	.5	15/25	Buyer's Market
6	.6	16/24	
7	.7	17/23	
8	.8	18/22	
9	.9	19/21	
10	1.0	20/20	Equilibrium
11	1.1	21/19	
12	1.2	22/18	
13	1.3	23/17	
14	1.4	24/16	
15	1.5	25/15	Seller's Market
16	1.6	26/14	
17	1.7	27/13	
18	1.8	28/12	
19	1.9	29/11	
20	2.0	30/10	Dire Shortage

**High-Tech (30Kcr; +2):** This commodity includes various products concocted in physics labs that are necessary for the technology of the future. Items in this category include: Positrons (for weapons and medical scanners), Heavy Hydrogen, Heavy Water, Deuterium (used for fusion reactors), Tritium (used for fusion reactors and to initiate nuclear explosions in weapons), and Anti-protons (for antimatter weapons and reactors). These items are usually transported in (relatively) small amounts, thus the high price (ever see a ton of Positrons before? That's what I thought).

**Magnetic Bottles (3Kcr; +4):** Magnetic bottles are necessary components of any weapon or reactor that makes use of antimatter. These are also needed to transport these destructive materials.

**Metals (1Kcr; +2):** This includes metals commonly used as construction materials, such as Gold, Copper, Beryllium, and Titanium. These materials are extremely heavy, and take a large ship to transport in profitable quantities.

**Microbes (50Kcr; +2):** Genetically engineered microbes are very valuable. The most common form of this commodity is a replacement microbe for ALSS units, which are rapidly replacing old-fashioned Oxygen tanks and CO2 scrubber assemblies. This commodity could also represent medicinal microbes.



## CHAPTER 5: STARSHIPS

The *Repulse* emerged from the debris field, and Admiral Antilles was just about to give the order to take the ship back up past light speed, when Captain Armstrong caught his attention from the rear of the bridge.

"Belay that order Helmsman. Full Stop. All Weapons Crews, we are still at general quarters, keep your eyes open."

The Admiral got up, and moved to where Captain Armstrong was whispering urgently with Lieutenant Lewis, the ship's Science Officer. The Admiral stopped himself from frowning as he got closer, the crew was always watching him, and the slightest show of fear or lack of confidence could be the difference between the success and failure of their mission. But the fact that the two men were making sure the rest of the bridge couldn't hear what they were saying made the hairs stand up on the back of his neck.

"Gentlemen. What's so urgent?"

Still whispering, the Captain looked at the young Science Officer, "Tell the Admiral what you just told me Lieutenant. Quietly."

Taking a deep breath, Lieutenant Lewis looked at his Admiral, trying to steady his voice as he spoke, "Something's wrong Admiral. With the debris field."

Admiral Antilles wanted to laugh; he thought perhaps the ship was being followed or that the pirates had dropped some mines into the debris field to deter anyone from following them. Scientists, he muttered to himself.

"We didn't go too fast and scatter the debris did we Lieutenant? I know the graveyard is a protected landmark and that ships are ordered to reduce speed to stop the debris from scattering but..."

"No Admiral, that's not it."

The Admiral stopped as he caught the expression on Captain Armstrong's face, an expression he had never seen there in over thirty years of service with him, through good times and bad, an expression not just of fear, but of *dread*.

"There's too much debris Admiral. And it's hot."

"Hot? What do you mean Lieutenant? Quickly."

Taking another deep breath, and looking to the Captain for reassurance, Lieutenant Lewis just decided to say it, the brig and a straightjacket weren't the worst way to end his military career, "The weapons used in the Diaspora War were mostly radioactive. I did my Master's Thesis at

Tycho University in radioactive decay and so I took some readings. The radiation is too high."

The Admiral shook his head, frowning, "I swear Lieutenant if you delayed this mission because some old graveyard disproved your thesis I will..."

"That's what I'm trying to tell you, Admiral. It's not old. It's *new*."

"It's not new Lieutenant, its decades old."

The Lieutenant shook his head, fear at angering his commander forgotten, he was right, it was science, and there was only one answer, no matter how crazy it might sound. "Radiation fades at a set rate Admiral, slowly over time Rads diminish, but at a predictable rate. According to my calculations, this battle happened *weeks* ago, not decades ago."

Captain Armstrong looked at him, he had been a Chief Engineer before moving up to be First Officer, and was one of the most brilliant scientists the Admiral had ever known. Over the Lieutenant's head he whispered, "The temporal spike".

Admiral Antilles literally had to steady himself against the console as the bridge spun around him. Lieutenant Cook rose from his helm station, "Are you all right Sir?"

Antilles waved the young officer away, angry with himself for the show of emotion. The crew was always watching, he reminded himself for the millionth time since that day aboard the *Antietam* so long ago.

"Captain Armstrong, Lieutenant Lewis, Admiral's Mess. Now.

Lieutenant Cook, you have the bridge. Do not move from this position unless directly ordered by

me. Do not hail any ships you pick up on the radar and do not respond to any hails. Is that clear Lieutenant?"

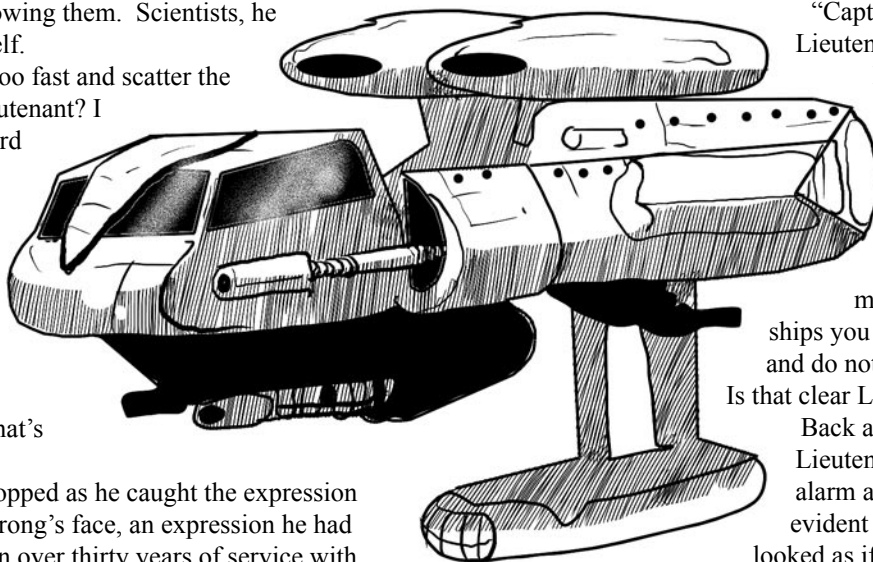
Back at his station, Lieutenant Cook nodded, alarm at the Admiral's tone evident in his expression, he looked as if he had a hundred

questions he wanted to ask, but his

training took over, and he responded "Yes Admiral, crystal clear Sir."

The Admiral nodded, and left the Bridge after his First Officer and Science chief. He smiled at the officers as he left the bridge, catching their gazes with his, patting a couple on the back, his walk confident and calm.

As soon as he was out of sight of his bridge crew he broke into a run.



# STARSHIPS

Starships. Even the word fires the imagination. In the 24<sup>th</sup> century, Starships run the gamut from beat up asymmetrical Trawlers that have been flying through micro meteors for 3 hundred years, to sleek fast corporate yachts, to the looming, imposing presence of the new System Defense Craft. As money and hard-working corporate citizens have moved out into space, piracy has followed. With the sheep come the wolves.

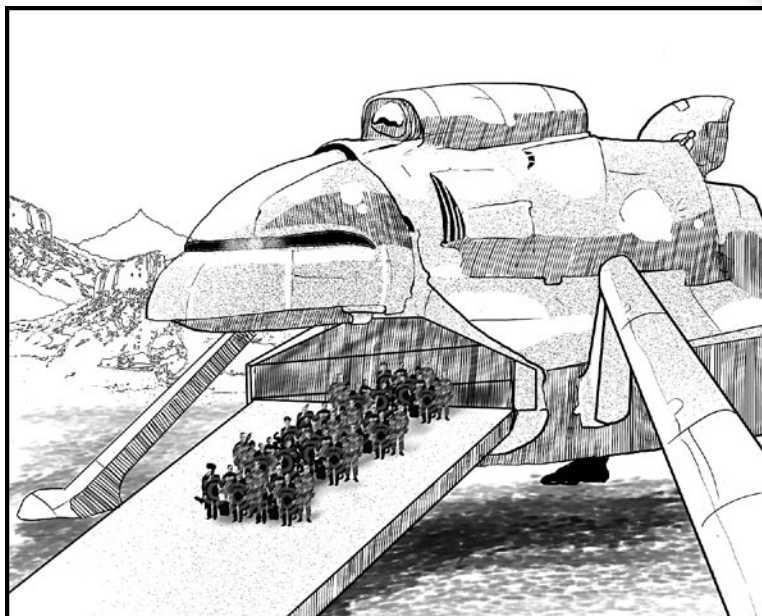
## FINANCING STARSHIPS

Starships are not cheap. The first thing any would-be space explorer is going to have to do is round up some financing. For the spacer with a little savvy (and a good Tech to hold things together), some cheap parts can be found at the Junk Markets. Scavenger Trawlers pull into port all the time with pieces of derelict hulks hundreds of years old. Since objects do not really age or corrode in space, these parts are as good as they were 200 hundred years ago. However, something caused that ship to *become* a derelict, so caveat emptor is the word to wise. Maybe you could win a ship in a card game, or even (if you're really desperate) get a job. In the end, how hard (or easy) it is for the characters to come across their ships is a function of the kind of campaign the GM wants to run as anything else. If the GM wants the characters to all be members of an elite fighter squadron, then obviously someone is going to supply these hotshots with their ships. If the characters are engaged in backroom deals and black hearted maneuvering in the Corporate Home Office on Ganymede, they might never need a ship. Some options for finding, begging, or borrowing your way into the cockpit of that dream ship appear below.

## WORKING FOR A HAULING COMPANY

Most Hauling "companies" are family affairs. For the oldest ones, such as the Belt Runners, these extended families comprise thousands of Haulers. Unless one of the characters is a Hauler himself, the party is unlikely to be able to use this option. Haulers are the gypsies of the 24<sup>th</sup> century and tend not to trust those outside their circle.

This is a good option for the characters, because Haulers exercise great autonomy in their business affairs. A rumor might lead a ship into uncharted territory, following a hot tip. As long as the character returns a commission to his family (33% is typical), and his ventures are profitable, and he doesn't junk his ship, a



Hauling contract might be the way to go. Besides the commission, another drawback of this financing method is that the Haulers will occasionally have a job for the character. Also, Haulers tend to shy away from ruins, and encourage their "franchisees" to do the same. Many fortunes have been made in the alien ruins that dot the moons, but as often as not there is nothing to be found but an ancient disease or a corporate raider. And the Haulers have done quite well in business for four hundred years by avoiding The Company.

## INDENTURED SERVITUDE/ TENANT HAULING

As the need for workers in the Frontier grows, and as the desire to live on the edge of civilization has grown, two old models have reemerged: Indentured Servitude and Tenant Hauling.

Many people say "it doesn't matter what you do, just so long as you do it on the Frontier". Guarantee the company 3-10 years of service, and you can live on Ganymede. The more valuable your skills, the less time you have to guarantee the company. While working out your "term", you will be fed, clothed and housed. Beyond that, you will be paid a tiny amount (usually 2000 cr a year) that will be placed in a fund, and paid to you when your service is up. Given that slavery is legal everywhere except Earth itself, no one questions that this arrangement is in the best interests of The Company and the servants.

There are those who are so desperate to explore they are basically willing to rent time in someone else's ship. This is called Tenant Hauling, and has been a successful economic model since the Middle Ages. The owner of the ship allows the renter to use it for anything he wishes, in return for a steep percentage (usually 70-90%) of the character's earnings. Also, a minimum expected payment per month is set (usually 2,000 to 4,000 cr), and if the character cannot make that amount, then he agrees in



## JUNK MARKET FLAWS (D%)

Roll	Title
01-25	<b>Good as new!:</b> The item in fact has no flaws at all
26-40	<b>Threadbare:</b> The item always works, but at -10% efficiency (engines will be slower, weapons are -2 to hit, and so on).
41-50	<b>Worn Thin:</b> The item always works, but at -30% efficiency (weapons are at -6 to hit)
51-55	<b>Barely There:</b> The item always works, but at -50% efficiency (weapons are at -10 to hit)
56-60	<b>Poorly Maintained:</b> The item was not taken care of during its lifetime, and will fail under pressure. Any time the item is <i>stressed</i> (see the Starship statistics section), there is a 1 in 20 chance of a Minor Malfunction occurring (see the Repair skill).
61-70	<b>Shoddy Workmanship:</b> The item is fine structurally, but was poorly assembled at the assembly line level. If this system is stressed there is a 1 in 20 chance of a Severe Malfunction (see the Repair skill).
71-80	<b>Bad Materials:</b> 1 in 20 chance for a Catastrophic Malfunction.
81-90	<b>Design Flaw:</b> The item was designed with an inherent flaw, and has a 1 in 10 chance for a Catastrophic Malfunction (see the Repair skill) each time it is stressed.
91-95	<b>Previous Damage:</b> The item was seriously damaged in the past, but repaired. Each time it is stressed, there is a 1 in 10 chance that this flaw recurs. Roll again on this table at +25 when the flaw recurs.
96-00	<b>Special:</b> Something is <i>*really*</i> wrong with the item. This result is left up to the GM's devising, and he is encouraged to be fiendish. Perhaps a secret compartment in the Shield Generator the players just got such a good deal on contains diamonds, and the local Smugglers' Boss wants his property back.

advance to change the arrangement to one of Indentured Servitude. Still, for the would-be explorer who thinks he knows the secret to translating an ancient alien tongue no one else has ever deciphered, he might be desperate enough. Many short-run Haulers, working the Asteroid Belt to Tycho City run, and other "safe" Hauling runs work under this arrangement, feed their families, and still have a little left over.

## LEASING

For those with slightly deeper pockets, leasing is an attractive option. For a modest down payment (20% of the ship's total value is common) and reasonable monthly payments (10-20% of the Ship's value again being common), with interest of course, the character agrees to lease the Ship for a specified amount of time, 2-5 years being common. At the end of that time, the character either returns the ship to its owner, in the condition it was in when he leased it, or he pays the balance of the ship's purchase price and becomes the owner himself.

## BUILDING

Utilizing various item creation feats and skills, a character can feasible craft their own starship. Doing so is both expensive and time consuming. Each component of a starship requires an item creation feat and related craft skill. Using the *Craft (structural)* skill, a character can build a starship hull and its facilities. Using the *Craft (mechanical)* skill, a character can build weapons, defense

systems, and star drives. Using the *Craft (electronic)* skill, a character can build a ships computer. And finally, using the *Computer Use* skill, a character can add additional programs to a ships computer.

## JUNK MARKET

For those willing to take a chance, used merchandise is an excellent way to reduce the cost of buying a ship. When consulting the Junk Market Flaws table, first decide what discounts might be available and/or discover how much the party wishes to pay, then roll a d6. On a 1-3, determine one major flaw by rolling once on the JMF table, adding +10 for each 10% below market value for a comparable item bought new. On a 4-6, roll on the JMF table with no modifiers once for each 10% below the market value for a comparable item bought new. The GM should note these results secretly.

A successful Repair skill check will usually reveal some of these shortcomings, allowing the knowledgeable buyer to avoid the lemons. The DC for this Repair check is 10 for the first Flaw, 15 for second, 20 for the third, and so on. This is why it's best to sometimes give an item one big flaw, and sometimes lots of little flaws. The players will know what discount they're getting, but won't necessarily know if they have detected all the flaws or not.



# STARSHIP CONSTRUCTION

Starships are composed of various components: Hull Type, Star Drive, Defensive systems, Weapons, and Miscellaneous Gadgets. The craft's Hull determines how much cargo and passengers it can carry, the ship's Hull Points, a minimum and maximum engine type, and how many weapons ports it has. The Star Drive will determine how fast the craft can go, and how many systems it can power simultaneously. Defensive systems will make the craft harder to hit and/or damage. Weapons will allow the starship to attack other ships. And Miscellaneous Gadgets will allow a ship to do... miscellaneous things.

All Starships come with basic Armor, minimum Particle Shields, Balloon Aerobrakes, a Solar Sail, basic Radar, and Maneuvering Thrusters.

## STARSHIP CONSTRUCTION IN FIVE EASY STEPS

### Step 1: Pick a Hull

More than anything, even more than a star drive, hull size and choice will determine what a ship can do. A large ship, with spacious cargo holds, can take that extra space and convert it to *anything*. A Civ 5 Hull (20 tons of cargo space) could be a troop transport, a science vessel, a gun ship, or a cruise ship. A smaller hull can make a fine craft of any type, but will be much less easy to customize.

### Step 2: Pick a Star Drive

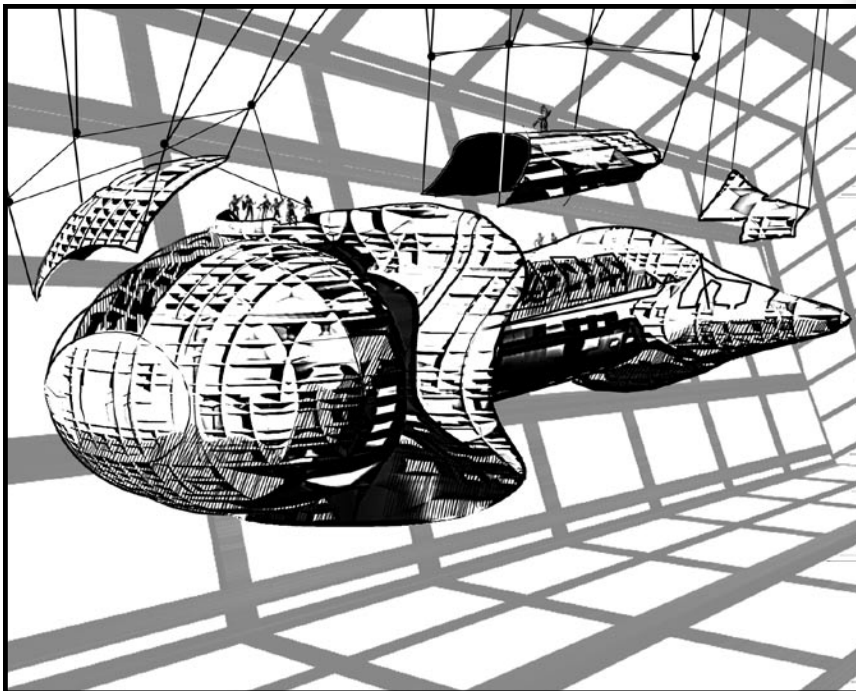
Second only to the Hull, a star drive will determine what the ship can do. How fast can it get where it's going, how many systems can it power.

### Step 3: Choose Weapons and Defenses

Now you decide if you want to fight, or run. If you decide to run, go back to Step 2 and pick a better star drive. Trust me. How many weapons each ship can carry is determined by its ports, so make sure you aren't loading a Civ 2 up with 30 large weapons. Defenses require a careful look at your craft. Armor is nice, but it makes a ship harder to turn. Shields are even nicer, and have no pesky turn modifier. However, Shields are only useful to the ship that has plentiful power.

### Step 4: Choose Miscellaneous Systems and Computers

No ship needs miscellaneous systems. However, these systems improve the performance of a spacecraft in



specific ways. By now you should have an idea of what sort of ship you want. If you are looking for a fast ship capable of running and hiding, you probably want Aerodynamic Design (which allows you to land the craft), and Afterburners (giving you a speed boost in return for Power). If you chose an engine whose operating costs are going to bankrupt you, take a Ram Scoop and make the ship more efficient. Steps 4 and 5 are where a ship really begins to take shape.

### Step 5: Choose Facilities

In many ways, Step 1 and Step 5 are the most important to determining what a craft is. What is its mission? If the answer is boarding actions, you want loads of marines, which means you want plenty of cargo space for all those troop transport bays. In essence a facility lets a Starship do more with its cargo space than... haul cargo. Looking around your cargo and thinking "I could land a shuttle in here," well this is the section that lets you do just that.

## STARSHIP HULLS

The first decision when designing a Starship is the type of Hull the Starship will have. In many ways, a ship's Hull will determine its mission. A Voyager Class ship is much more suited to be a cargo ship than a Luna, for example.

**Hull Points:** This is the amount of damage a craft can take before it is disabled.

**Size:** Much like creatures, Starships are assigned size categories for ease of reference.

**Defense Modifier:** This bonus makes the craft easier or harder to hit.

**Turn Modifier:** This modifier represents additional movement cost for turning starships. See starship combat for details on turning and movement.

**TABLE 5-1: HULL SIZE**

Size	Dimensions	Defense Modifier	Turn Modifier	Max Cargo
Micro	3 ft x 3 ft.	+10	---	None
Fine	10 ft x 6 ft.	+8	---	None
Diminutive	16 ft x 10 ft.	+4	-3	None
Tiny	26 ft x 13 ft.	+2	-2	500 lbs
Small	50 ft x 13 ft.	+1	-1	2 tons
Medium	115 ft x 16 ft.	+0	+0	35 Tons
Large	330 ft x 26 ft.	-1	+1	100 tons
Huge	1300 ft x 65 ft.	-2	+2	200 tons
Capital	5000 ft x 150 ft.	-4	+3	200 tons
Dreadnought	7500 x 200 ft.	-8	+4	250 tons
Station	10,000 x 500 ft. and up	-10	+6*	500 tons

\* Stations can only use their Acceleration to turn

**Cost:** This is the cost to buy the craft outright. See the Financing section above for information on reducing this burden.

**Cargo Space:** This is amount of interior space a ship has available. These large open areas can be used to haul cargo (allowing you to make a profit off of your journeys) or to customize the ship through the addition of Starship Facilities (see the Starship Facilities for more information). However cargo space is used, it weighs down your vessel, and imposes an Acceleration penalty (see Star Drives for more information).

**Crew:** The two numbers represent the minimum crew to run the craft effectively, and the maximum crew that can be carried without a loss of cargo space. All entries are listed in units of crew. An entry of 0 means a single individual can fly the craft effectively. Note that if the Pilot does not have the *Dogfighting* feat that a second member will be required to fight effectively in the craft (see the *Dogfighting* feat for more information). Fighters do not have crew requirements in Units, but rather individuals. A crew unit represents 5 crewmembers. See Chapter 6 for more information on starship crews.

The first unit is always a Helm unit, the Second unit is always an Engineering Unit, the third a Damage Control Unit, and so forth (so a ship that requires 6 Crew would have 2 Helm, 2 Engineering, and 2 Damage Control). Remember also one crew unit is needed for each weapon the ship wishes to attack with not manned by a PC or named NPC.

Specialized crew from the various Facilities listed later in this chapter does not count against the maximum crew totals. Maximum crew totals represent the ship's crew quarters (how many crewman the ship can feed, bed and so forth), and the Cargo loss of the Facilities that grant a ship specialized crew takes this into account.

**Operating below Minimum Crew:** Ships suffer a -2 Piloting and +2 Turn Modifier for each Helm unit below the minimum, and a -2 Acceleration for each Engineering unit they are short. Ships without Damage Control crew

will not be able to repair any damage suffered without putting the ship into dry-dock.

**Rotating Crew:** If a ship has suffered heavy losses, it can use crew for things they were not trained to do to meet its minimum requirements. Thus a ship, whose entire Helm crew was killed by multiple bridge hits, might use Science crew to fill that requirement while it limped back to base. While crew used in this fashion will remove the penalties for not meeting crew minimums, if the ship enters combat, that crew functions as a Raw Unit, regardless of its normal quality.

**Passengers:** This is the number of additional people the craft can carry in comfort. Cargo space may be used for uncomfortable billets to carry additional passengers, simply divide the Cargo weight by 200 lbs for the maximum passengers a craft can carry if it carries no cargo.

**Ports:** This is the maximum number of weapons the ship may have mounted on it. When the weapons are installed, the character must decide which direction the weapon points (called its weapon arc). For an additional cost, weapons may be swivel or turret mounted for a greater weapon arc. All Ports are "universal", allowing you to trade up or down. For example, a ship with 3 Large Ports could mount 12 Point Defense, 6 Small or 3 Large weapons. Weapons add weight and draw power from other systems, so they slow your ships down. For every 3 full ports (round down for fractions) a ship takes a -1 Acceleration penalty.

**3 PD Ports = 1 Small Port**

**3 Small Ports = 1 Large Port**

**3 Large Ports = 1 Huge Port**

**TABLE 5-2: HULL TYPES**

Fighters	Hull Pts/Size	Cost	Crew	Passengers	Cargo	Ports
Fighter 1	10 (Dim)	1.25Kcr	1	0	25 lbs	1 PD
Fighter 2	15 (Dim)	2Kcr	1	0	25 lbs	2 PD
Fighter 3	15 (Dim)	2.5Kcr	1	0	25 lbs	1 Small
Fighter 4	15 (Dim)	3.5Kcr	1	0	25 lbs	2 Small
Fighter 5	20 (Tiny)	4Kcr	2	0	25 lbs	1 Large
Fighter 6	20 (Tiny)	6Kcr	2	0	50 lbs	2 Large
Civilian	Hull Pts/Size	Cost	Crew Units	Passengers	Cargo	Ports
Civ 1	10 (Tiny)	1.2Kcr	0/1	0	200 lbs	None
Civ 2	15 (Small)	2Kcr	0/1	1	500 lbs	None
Civ 3	20 (Small)	4Kcr	0/1	1	1 ton	1 Small
Civ 4	25 (Small)	6Kcr	1/2	2	1.5 tons	2 Small
Civ 5	30 (Med)	25Kcr	1/3	2	20 tons	1 Large
Civ 6	35 (Med)	42.5Kcr	2/4	3	35 tons	2 Large
Civ 7	50 (Large)	109Kcr	3/5	5	100 tons	2 Large
Civ 8	50 (Large)	211Kcr	5/7	10	200 tons	2 Large
Corporate	Hull Pts/Size	Cost	Crew Units	Passengers	Cargo	Ports
Corp 1	40 (Med)	47Kcr	3/8	4	35 tons	4 Large
Corp 2	50 (Large)	67Kcr	3/10	6	50 tons	6 Large
Corp 3	60 (Large)	122Kcr	3/12	10	100 tons	8 Large
Corp 4	70 (Large)	81Kcr	4/16	15	50 tons	12 Large
Corp 5	80 (Large)	236Kcr	6/20	30	200 tons	14 Large
MCC	50 (Large)	25Kcr	0	0	100 tons	0
Military	Hull Pts/Size	Cost	Crew Units	Passengers	Cargo	Ports
Military 1	100 (Huge)	60Kcr	6/23	10	20 tons	5 Huge
Military 2	100 (Huge)	230Kcr	6/18	0	200 tons	3 Huge
Military 3	150 (Capital)	355Kcr	6/30	20	300 tons	7 Huge
Military 4	200 (Dread)	280Kcr	8/40	20	200 tons	10 Huge
Stations	Hull Pts/Size	Cost	Crew Units	Passengers	Cargo	Ports
Outpost	200 (Station)	82Kcr	3/20	0	50 tons	2 Huge
Installation	250 (Station)	149Kcr	5/30	10	100 tons	4 Huge
Headquarters	300 (Station)	270Kcr	10/50	100	200 tons	6 Huge
Defense Post	250 (Station)	365Kcr	5/50	0	300 tons	7 Huge
Battle Station	350 (station)	512Kcr	10/60	10	400 tons	12 Huge
Structures	Hull Pts	Cost	Crew Units		Cargo	Ports
Gun Placement	10	3Kcr	0/1		100 lbs	2 Large
Bunker	20	10Kcr	1/6		10 tons	4 Large
Small Base	40	30Kcr	2/10		40 tons	3 Huge
Medium Base	60	53Kcr	2/15		80 tons	3 Huge
Large Base	80	119Kcr	2/20		150 tons	5 Huge
Complex	100	335Kcr	2/35		400 tons	10 Huge
Camouflaged	*	+ 5Kcr	*		*	*
Entrenchment	+10	+10Kcr	*		*	*
Expansion	*	+10 %	*		+10%	*
Fortification	*	+5Kcr	*		*	*



## FIGHTER HULLS

Fighter hulls are diminutive or tiny, and only have crew space for the pilots and co-pilots.

**Fighter 1:** This most basic of fighters is really nothing more than a shuttle, with the crew and cargo space converted into a weapon mount. Even so, this class of fighters is poorly armed, only capable of mounting a single point defense weapon. These craft are mostly used for reconnaissance and defense.

**Fighter 2:** Only slightly better armed than a Fighter 1, these ships see extensive use as reconnaissance craft.

**Fighter 3:** These craft are the smallest capable of serving in an offensive role with any realistic chance of survival. These craft are quite often seen in the employ of large merchant houses, where they serve as escorts, and in pirate fleets, which prey on those merchants.

**Fighter 4:** These fighters see extensive use in military fleets, as they are able to destroy many small ships by themselves. A Wing of these craft is a threat to all but the most powerful and well-equipped ships.

**Fighter 5:** These fighters, even in small numbers, are capable of destroying large and powerful starships. As such, even a few of these make a starship are much more dangerous opponent.

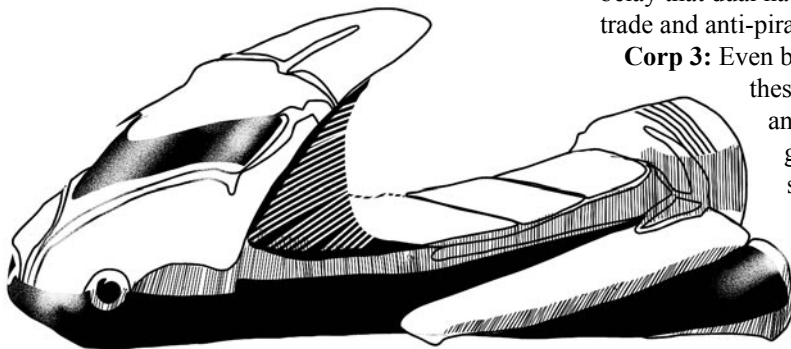
**Fighter 6:** These fighters are almost never seen outside large military fleets. A single squadron of these fighters, properly equipped, would cost over 150Kcr. Their power and ability to decide battles makes them highly sought after by those that can foot the bill.

## CIVILIAN HULLS

Civilian hulls are designed for smaller scale transportation of people and equipment in both the commercial and non-commercial sectors. While larger in carry and crew capacity, they are still much smaller than corporate cargo carriers.

**Civ 1:** Class 1 Starships are small, cramped, craft, with little passenger space and even less for cargo.

**Civ 2:** A bit larger, and with an actual cargo bay, these craft were the first merchant vessels to ply the spacelanes. Not only are these craft still being made (though they usually operate more as couriers than merchant vessels today), but also, amazingly, some of the original craft are still in service.



**Civ 3:** The Class 3 is a fine ship, the smallest capable of mounting Large weapons systems such as the Rail Gun, and able to use the Arcturus Solar Sail. Many Class 3 ships in service today are science vessels, as their spacious cargo bays make them ideal for Zero Gravity experiments. However, this fine ship makes a good Merchant vessel as well. This is the smallest ship capable of using the Arcturus Carbon Solar Sail.

**Civ 4:** This is the smallest ship capable of having a Castor Auxiliary Generator.

**Civ 5:** Class 5 Hulls are the workhorses of the large merchant companies, and are possibly the most common ship in known space. These vessels' spacious cargo bays make them suitable for trade, exploration, or piracy.

**Civ 6:** Class 6 Hulls are the Jewels of any merchant fleet, capable of extended duty in uncharted space with little or no support, these ships are seen in service among large merchant families, the Corps, and even the military, where they serve as transports and picket ships.

**Civ 7:** The Civ 7 Tanker is larger than many military vessels. These ships are used to haul vast cargos, and make regular supply runs to the outer colonies of any space empire to save money. Only the largest and most successful Hauler families even own a ship of this magnitude.

**Civ 8:** The Civ 8 SuperTanker is a monster vessel, dwarfing most military and Corporate Vessels. These gigantic craft are always at the center of large flotillas, and are always escorted by fighters and other defensive craft, as they make tempting targets for pirate raids.

## CORPORATE HULLS

Corporate hulls are mostly used for shipping as evident in the cargo size. However, it's not uncommon to find a corporate hull well armed and protected.

**Corp 1:** These vessels are essentially Class 6 Civilian craft with additional weapons ports added. These vessels are often drafted into military service during wartime, as the civilian merchant marine forces to protect home systems. As such, many of these vessels have proud and rich histories as both merchant and military vessels.

**Corp 2:** Corp 2 Hulls are decidedly not intended for purely civilian purposes. In Frontier regions, the Corps is both employer and government, and these Large ships bely that dual nature, as they are equally adept at both trade and anti-piracy missions.

**Corp 3:** Even bigger than Corp 2 Hulls, originally these craft were designed to be destroyers and exploration vessels by military and government forces. However, as larger ship types were produced, the military decided to allow large Corporations to buy these vessels in return for a healthy influx of cash.

**Corp 4:** The Corp 4 has the distinction of being the largest class of ship legal for a civilian company

to own. These vessels, unlike the Corp 2 and Corp 3, were not designed by the military and then later adapted to civilian use. Rather, the Corps designed this vessel from the ground up to serve as “capital” ships and mobile corporate Headquarters.

**Corp 5:** This craft is both Princess and Workhorse, all rolled into one. These craft are used as the spearhead of large corporate flotillas, and are often almost as well armed as a military Destroyer.

## MILITARY HULLS

Military hulls are ideal for heavily armed starships and are the preferred hulls of any military organization.

**Military 1:** These powerful craft are most often employed in a cruiser role, where they are capable of operating equally well alone, in squadrons, and in support of larger capital ships. These ships are typically the backbone of any large space fleet.

**Military 2:** These craft are most often used as troop transports and light carriers, with their large cargo areas converted to either orbital assault bays or hangar bays. These craft are almost never encountered alone, usually with two destroyers or a cruiser to protect them.

**Military 3:** These craft are true capital ships, and usually serve as the spearhead of any assault fleet. These are the hammers that punch holes in enemy formations, so that carriers and troop transports can make their way in and take planets.

**Military 4:** These craft, the largest in any fleet, are most often found in the role of Super Carrier, acting as the launching pad for vast fleets of fighters. Occasionally these craft will also be seen as Battleships. Either way, these craft are never encountered alone.

**Modular Cargo Container (MCC):** These huge storage bays allow a ship to increase its cargo capacity. Medium Vessels may only attach one MCC, and take a -4 Acceleration penalty while it is attached. Large Vessels may attach up to 6 of these in tandem, taking a -2 Acceleration penalty per MCC. Modular cargo containers have no life support module, and thus cannot be used to transport passengers without significant modifications.

## SPACE STATIONS

These hulls are used for space stations only.

**Space Station, Battle Station:** These stations serve as fall back positions and repair stations for large space fleets. They are built within striking distance of an area a major empire expects trouble, and are used to defend extremely important planets and trade routes.

**Space Station, Defense Post:** These large, well-armed installations serve as the first line of defense for any large interstellar empire, and are usually stationed along its borders with a hostile empire.

**Space Station, Outpost:** Small, cramped, and often hundreds of years old, these stations serve merchants in backwater and frontier regions. Many of these outposts are stationed where they will *not* be come across

accidentally, serving as gambling houses and brothels run by criminal elements.

**Space Station, Installation:** Usually stationed along well-established trade routes, or in orbit around large gas giants on the frontier, these stations serve as the cities of deep space.

**Space Station, Headquarters:** Usually found in well-protected regions of space, these luxurious installations are the home bases for the largest corporations.

## STRUCTURES

These hulls are for structures that are fixed on planetary objects.

**Base, Large:** These structures may be built on moons and planets size 14 and above (since only the largest moons are size 14, this Structure is most commonly seen on planets).

**Base, Medium:** These structures may be built on moons and planets size 12 and above.

**Base, Small:** These structures may be built on moons and planets size 10 and above.

**Bunker:** The smallest structure capable of long-term habitation, a Bunker typically has a ship model ALSS. These structures may be built on moons and planets size 8 and above.

**Camouflaged:** Structures with this enhancement are harder to see from air or space. The DC for the Sensor Operations check to detect the structure is increased by five, and any Spot check to notice the structure from an atmospheric craft is increased by ten.

**Complex:** These huge structures may only be built on planets size 16 and above.

**Entrenchment:** This enhancement represents a structure that is partially below the surface of the body it is built on, rendering it less vulnerable to attack. Each time this enhancement is taken, a base gains +10 HP, and a 10% miss chance from any aerial attack (such as bombs or missiles). This enhancement may be taken more than once, adding +10 HP and +10% miss chance each time it is taken, to a maximum of five times (+50 HP and 50% chance for successful attacks to miss). This represents more and more of the structure being below ground, until after it is taken five times, 90% of the structure is below ground.

**Expansion:** Bases can be expanded and made larger as well. Each time this enhancement is taken, the cargo capacity of the base rises by ten percent. However, this also raises the minimum size of the body the base can be built on by one as well. For example, a Bunker can normally be built on bodies' size 8 and above. If the owner wished to add two expansion enhancements to the Bunker (raising its cargo capacity from 10 to 12 tons), the smallest body the Bunker could be built on would rise to 10.

**Fortification:** Each time this enhancement is taken, the structure gains a +2 Cover bonus to its Defense from aerial attacks. This enhancement may be taken multiple

times, to a maximum of 5 (+10 Defense for 90% Cover).

**Gun Placement:** This structure is nothing more than a vacuum-sealed shack with two large gun ports mounted on it, and an ALSS inside for a life support “system”. These units are so small they can be mounted on asteroids, moons, or planets Size 4 or Larger, though since a portable ALSS only lasts for 10 man-days, support had better be close at hand. Pirate Lords have been known to mount these on asteroids surrounding their secret lairs, left empty until an attack is imminent.

## HARD SCI-FI STAR DRIVES

The star drive is the heart and soul of any Starship. This system determines how many devices a ship can power, how fast a ship can get from place to place, and, perhaps most importantly, how fast a ship can go. The fastest ship almost always wins a battle, and if things don’t go well, a fast ship can withdraw and fight when conditions are more favorable.

**Acceleration:** In micro gravity, acceleration is everything. With no resistance, you accelerate half way to your target, turn around, and decelerate the second half of the journey (by accelerating in the opposite direction). In Hard Sci Fi games, no ship may have Acceleration higher than +20. Acceleration +20 is rated in game terms as .99 c, so any craft which manages to modify its acceleration to +21 or above (with afterburners, booster rockets, cargo modifiers, etc) will reduce its acceleration to +20.

**Power:** Power is the excess power produced by a star drive. Power allows a ship to regenerate shields, power facilities, and power many additional types of equipment.

**Operating Costs:** How much fuel and maintenance

costs for the craft per month. There are a number of ways to reduce these costs. Having a character with 5 or more ranks in the Repair skill reduces operating costs by half, as he can do the labor part of the maintenance himself (you still need to pay for docking space and parts), and having a ram scoop installed on the ship will reduce costs by half. If you have both of these things, your operating cost is one-fourth.

**Fuel and Fuel Storage (Hard Sci-Fi):** As stated above, half of a ship’s operating cost is fuel. A Ship intending on making a long voyage must carry that fuel. Each 1 KCR (1,000 Cr) worth of fuel a ship carries takes up 1 ton of cargo space. This makes fighters short range craft that must return to their home vessel to refuel after each battle. If a fighter is forced to make a long trip, it moves 1 AU per Year.

**Price:** This is the cost to purchase the engine and have it installed. Since labor (uninstalling the old engine and installing the new one) represents 20% of this cost, enough skilled labor can reduce the purchase price by 20%. Installing an engine requires one supervisor with 10 ranks in the Repair skill, plus one assistant with 5 Ranks of Repair for each step up the table. So, one person (the supervisor) could install a Regulus engine, while a Vega class star drive would take one supervisor and 11 assistants to install.

## ACCELERATION MODIFIERS

### Cargo (only applies if ship has Cargo Space)

A Ship that has used less than half of its cargo space receives a bonus of +2 Acceleration. A Ship that has used 50-75% of its Cargo space receives no bonus or penalty. A Ship that has used 75% or more of its cargo space suffers a -2 Acceleration penalty.

TABLE 5-3: HARD SCI-FI STAR DRIVES

Name	Acc	Operating Cost	Price	Power
Regulus	+1	0/month	1Kcr	0
Pollux	+2	100cr/month	2.8Kcr	2
Antares	+4	50cr/month	5.2Kcr	3
Spica	+5	50cr/month	7.4Kcr	6
Aldebaran	+6	150cr/month	8.4Kcr	6
Acrux	+7	200cr/month	11Kcr	10
Altair	+8	200cr/month	14Kcr	15
Agena	+9	500cr/month	15Kcr	10
Achemar	+10	500cr/month	16Kcr	15
Rigel	+11	50cr/month	19Kcr	20
Capella	+12	50cr/month	24Kcr	30
Vega	+13	50cr/month	27Kcr	35
Arcturus*	CSS		5Kcr	
Proxima*			20Kcr	

\* Long distance drives.

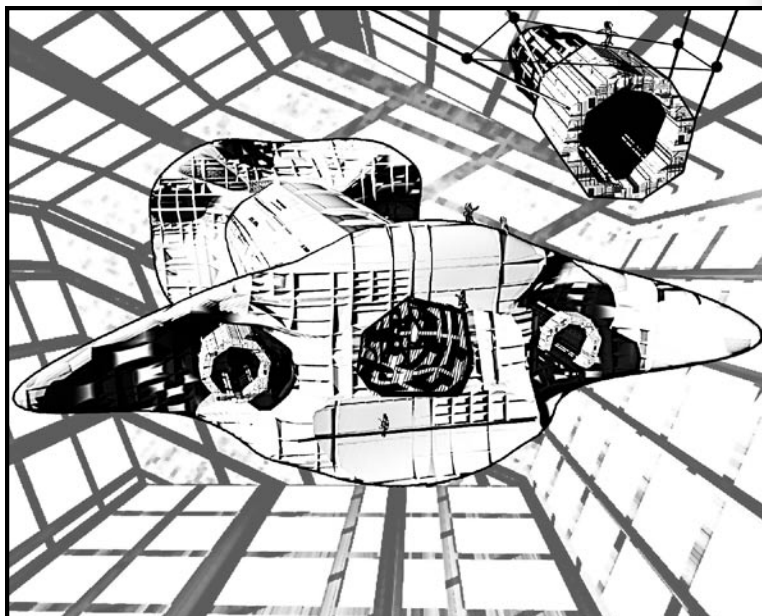


## Weapons

For each 3 Large Weapons a Starship has installed, it takes a -1 Acceleration penalty, rounded up (-1 at 1-3 weapons, -2 at 4-6 weapons, and so on). Small Weapons count as ½ a weapon, and Point Defense Weapons count as ¼ a weapon for this purpose.

## REGULUS

The Regulus uses a Solar Electric Xenon Ion drive (called a “SEXI” drive by Engineers). This star drive uses solar energy to generate electricity. This electricity is used to ionize xenon, which is accelerated with a magnetic grating and ejected from the rear of the craft to generate thrust. Due to the Regulus’ need for solar energy, this drive will not operate beyond Mars orbit.



## POLLUX

The Pollux uses a Fission Electric Xenon Ion drive. Since a small fission reactor (about the size of a 5 gallon bucket) is used for power, this craft can operate anywhere. Fission drives are cheap, reliable, low-maintenance sources of energy.

## ANTARES

The Antares star drive employs a fission reactor for generation of electricity. This electricity is then used to ionize hydrogen and helium, which is channeled by large super conducting magnets and heated via microwaves to millions of degrees Kelvin, creating plasma. This plasma is then ejected from a magnetic nozzle at over 100,000 meters per second, providing an enormous amount of thrust with very little fuel.

## SPICA

Like the Antares, the Spica uses plasma for thrust. However, the fission reactor on this drive system is over five times as powerful, generating over 1 gigawatt of electricity, making this a much more attractive drive system for a combat spacecraft.

## ALDEBARAN

The Aldebaran is also a plasma drive, however, a second-generation ion injector is used on this star drive, which allows the use of heavier ions, including argon, and krypton. Heavier ions produce more thrust.

## ACRUX

The Acrux uses the same heavy-ion plasma drive as the Aldebaran. However, a more powerful fission reactor gives this drive more energy for weapons systems.

## ALTAR

The Altair is of the same generation of star drive as the Spica and Aldebaran, but has the most powerful fission reactor of the three, making a craft with this engine fast and deadly.

## AGENA

The Agena uses a drive system very similar to that used by NASA Rockets of the 20<sup>th</sup> Century. Through a process known as Fission Thermal Chemical Propulsion (FCTP), the Agena generates a great deal of thrust, at the expense of consuming vast quantities of fuel. Traditional propellants such as methane, and oxygen are kept at super cold temperatures, then passed over a super hot fission reactor core, and then ejected from the rear of the craft at supersonic velocities.

## ACHEMAR

The Achemar also uses the FCTP for propulsion, however this craft has a much more powerful fission reactor (50 gigawatts), giving this ship a great deal of power for weapons and systems.

## RIGEL

The Rigel generates thrust through a process of Positron-induced Inertial Confinement Fusion. A stream of positrons initiates a fission explosion of a tiny uranium pellet within a deuterium-tritium pellet, which undergoes fusion. This generates a stream of 10 million degree plasma, which is directed from the rear of the craft in controlled pulses by uranium lenses and super conducting magnets.

## DISTANCE AND TIME

Below are some common units of distance for space travel; followed by a table that illustrates the time it takes to travel utilizing the various hard sci-fi engines.

**Astronomical Units (AU):** The Astronomical Unit is the measure of the Earth to the Sun, 93 million miles, or 150 million kilometers. Scientists adopted this measure of distance to discuss interplanetary distances more easily. For example, Pluto is 5,906,376,200 km from Earth, or 39.5 AU from the Sun. Obviously AU makes the vast distances involved easier to deal with.

**Light Year (LY):** However, when dealing with bodies beyond our solar system, the AU itself becomes cumbersome. One light year is 9,460,000,000,000 km or 63,240 A.U. For this reason, scientists simply refer to interstellar distances in Light Years.

**Inner Planets (1-2 AU and less):** This represents the worlds closest to a star, which tend to be terrestrial worlds. In the Sol System, the Asteroid Belt, Mars, Earth, Venus, and Mercury are in the Inner Planet Range.

**Outer Planets (5-40 AU):** These planets tend to be Gas Giants, although the moons of most Gas Giants are terrestrial planets like the inner planets.

**Interstellar (.5-2 LY):** This is the average distance between star systems.

Drive	AU / Year	1 LY / Years
<b>Regulus:</b>	1	63,240 Years
<b>Pollux:</b>	13	4,864 Years
<b>Antares:</b>	27	2,342 Years
<b>Spica:</b>	34	1,860 Years
<b>Aldebaran:</b>	44	1,437 Years
<b>Acrux:</b>	53	1,193 Years
<b>Altair:</b>	68	930 Years
<b>Agena:</b>	96	658 Years
<b>Achemar:</b>	160	395 Years
<b>Rigel:</b>	297	212 Years
<b>Capella:</b>	346	45 Years
<b>Vega:</b>	693	22 Years
<b>Arcturus:</b>	346	182 Years
<b>Proxima:</b>	1,825	8.5 Years

## CAPELLA

A major breakthrough, the Capella is the first true fusion engine. Through Magnetic Hydrodynamic Fusion, plasma is held stable in a 30-meter long magnetic cylinder. A steady stream of deuterium is fed into the chamber, and a thin stream of plasma is leaked out to provide constant thrust. The Capella is extremely powerful and efficient.

## VEGA

The Vega is the engine that the UEG believes will allow spacecraft to visit a nearby star for the first time. Through a matter-antimatter reaction, the Vega relies on the ultimate reaction to create almost unlimited thrust and power.

## LONG DISTANCE DRIVES

These two drive systems are only usable outside of combat. Any ship using these drives in combat is considered flat-footed.

## PROXIMA

The Proxima drive represents the ultimate desire of any low-tech space faring civilization: to reach a star other than their own. It is a composite of three different drive technologies. A continent sized carbon stellar sail provides the first stage. As the ship leaves its host star, a huge composite matter-antimatter and fusion reactor takes over, burning the antimatter store and pushing the craft even faster. As high speeds are reached, a ram scoop takes over, collecting fusionable materials from interstellar space to feed the hungry reactor and power on to the stars. This drive effectively includes a Vega star drive, Ram Scoop, and four +4 Booster Rockets, which are included in its price.

## ARCTURUS CSS

The Arcturus Carbon Solar Sail is not an engine, but it is a drive system, and is installed on every spacecraft. Although this drive can never be the only drive system a ship has (it only provides thrust when moving away from the Sun), it is a totally free, extremely fast mode of transportation. A large wire frame is extended, which is heated by the sun, emitting light and radiation back toward the sun, thus providing thrust. Solar sails are extremely fragile, and thus must also be retracted during combat. Retracting this solar sail takes 1 minute, minus one round per crew modifier (so a ship with Experienced Helm Crew would take 8 rounds to retract one of these devices).

## SPACE OPERA STAR DRIVES

Space Opera star drives allow characters and their ships to violate the laws of physics, exceeding the speed of light and undertaking journeys that span the galaxy. Many of the star drives presented below are simply additional engines capable of propelling a ship faster than light. Some are highly efficient reactors used to increase a ship's power supply in combat.

The GM will quickly notice that the engines on the tables below are not balanced. This is because each represents completely different approaches to space travel. In general, only one broad category should be used in any given campaign as the characters' main form of travel. This provides consistency, with the GM working into his campaign's history the discovery of the ability to travel faster than light. However, new types of travel, both more or less primitive, may also be discovered during the campaign, as the creations of long-lost aliens, or in use by a newly contacted alien species.

Ships with faster-than-light drives don't need a secondary, sublight engine installed to travel at sublight speeds. So long as the FTL ship keeps its ACC below +20, it's operating at sublight speeds.

### ACCELERATION MODIFIERS

All the modifiers presented with the hard sci-fi engines should be applied to these engines as well. Even GMs who wish a "realism lite" campaign should enforce these Acceleration penalties as a way to balance out the ships. Under these modifiers, a lightly armed ship is more mobile, giving characters a reason to not arm their ships to the teeth.

## HYPERDRIVES

A Hyperdrive allows a ship to enter a different dimension, *hyperspace*, which allows it to travel faster than the speed of light. This either involves a bending of space, folding it to literally put the ship closer to his destination (think of it as jumping 4 miles for every 3 you actually travel), or the ship enters a "hyper dimension" where *c* has a higher value, allowing a ship to seem to travel FTL by the standards of its home dimension. Either way, the ship is no longer in normal space.

A ship enters *hyperspace* when its acceleration reaches 21+. When seen from the outside, the ship simply disappears. Ships in hyperspace are no longer in normal space and only detectable by other ships in hyperspace.

## JUMP GATE

These gates come in pairs, and simply fold space between their ports. When you enter one side, you appear out the other side, several light years away. These gates become areas of strategic importance, as well as a nexus of trade and travel. Normally the gate's owner charges a fee to pass through or perhaps a tax on any goods being transported through for a merchant (10% would be a good figure).

## QUICKSILVER DRIVE

Quicksilver is a rare, mysterious substance given its name both for its metallic silver appearance, but also for its mercurial, unpredictable nature. Formed on the surface of stars and deep in the gravitational wells of the largest gas giants, quicksilver seems to null certain physical laws within close proximity. This allows starships, when they have enough of this substance, to simply accelerate past the speed of light. The normal acceleration curves simply

**TABLE 5-4: SPACE OPERA ENGINES**

Name	Acc	FTL	Operating Cost	Power	Price
<b>Hyperdrive</b>					
Primitive	+21	2c	250cr/month	30	36Kcr
Simple	+25	32c	500cr/month	40	45Kcr
Advanced	+30	1024 c	1000r/month	50	54Kcr
<b>Jump Gate</b>					
Short Range	-	5 LY	500cr/month	-	50Kcr
Medium Range	-	20 LY	500cr/month	-	200Kcr
Long Range	-	200 LY	500cr/month	-	2Mcr
<b>Quicksilver Drive</b>					
Primitive	+21	2c	500cr/month	25	30Kcr
Simple	+23	6c	500cr/month	30	35Kcr
Advanced	+25	32c	750cr/month	40	41Kcr
<b>Warp Drives</b>					
Primitive	+21	2c	500cr/month	30	40Kcr
Simple	+25	32c	750cr/month	40	50Kcr
Advanced	+30	1024c	1500r/month	50	80Kcr



don't apply. This substance is difficult and dangerous to acquire, and vanishes over time, so Quicksilver drives must be refueled. As a Quicksilver drive is reactionless, where this substance goes, if it is consumed, or if it simply slips into another dimension, is unknown.

## WARP DRIVES

Warp drives avoid the basic laws of physics by encompassing the ship within a *warp field*, displacing it from normal space. This allows the ship to accelerate beyond the speed of light.

A ship with warp drive goes to *warp* when its acceleration reaches 21+. While still in normal space, the ship is moving faster than the speed of light and can only be followed by a ship that can match its acceleration.

## FASTER THAN LIGHT

Once a ship reaches an acceleration of 21+ it will travel faster than light. For long trips, game masters may want to know how long the trip takes. You can use the following formula to determine the ships faster than light speed or use the chart below.

$$\text{FTL Speed} = 2^{(\text{Acceleration} - 20)}$$

Acceleration	FTL
21	2c
22	4c
23	8c
24	16c
25	32c
26	64c
27	128c
28	256c
29	512c
30	1,024c
31	2,048c
32	4,096c
33	8,192c
34	16,384c
35	32,768c
36	65,536c
37	13,1072c
38	26,2144c
39	524,288c
40	1,048,576c

## STARSHIP DEFENSIVE SYSTEMS

A Starship has many dangers to face from outer space even if it does not engage in combat. The Solar Wind and Radiation are the two most common dangers. Thus, every spacecraft is equipped with a Titanium/Gold/Beryllium plating to protect crew and sensitive electronics from dangers, and a Magnetospheric Shield to protect from the charged particles of the Solar Wind. Spacecraft are also armored to protect from micro-meteor impacts.

Starships benefit from both shields and armor, and each of these defenses works in a different way. A Starship may only have one Shield system and one Armor system installed simultaneously. However, both can protect the craft at the same time. When a Starship is hit, damage comes off Shields first, and then is passed onto Armor.

Armor defenses are *Ablative*. Ablative defenses lose one DR each time they are penetrated by an attack. This damage must be repaired by the Repair skill in the same manner as Hull Point damage.

Shields are *Regenerative*. When a Shield takes damage, its DR is reduced by the full amount, whether or not that damage penetrates the Shield's Damage Resistance. Every round, this damage is "repaired" by an amount equal to the free Power possessed by the ship. The Ship's Engineer may turn off Weapons Systems if he wishes to allow Shields to regenerate faster.

Armor imposes a penalty on a Starship's turn modifier as well, as shown on the following table.

## TITANIUM/GOLD/BERYLLIUM

This common hull plating provides a ship with some additional structural integrity, but is primarily intended to protect crewmembers from the radiation common in space.

## KEVLAR CELLULOSE PLATING

An older type of armor, one of the first to be designed with combat in mind, as piracy and war followed explorers out into space.

## TITANIUM ALUMINUM ALLOY

A very sturdy armor. Only a lack of energy shielding prevents this armor from being a combat mainstay. This is popular among merchants and miners who just want protection from micro-meteor impacts.

## MIMETIC ORGANIC PLATING

A very nice hull plating, this armor provides protection against radiation, impacts, and also disperses the effect of beam weapons.

## BORATED GEL CAPILLARY EXCHANGE

The ultimate in protective plating, this alloy disperses all kinds of energy throughout the entire hull, rather than taking the brunt of any attack at one point. This makes a hull penetration much less likely.

## MAGNETOSPHERIC SHIELD I

Originally electromagnetic shields were only used as screens to augment a craft's Radiation Shielding during electromagnetic storms and when close to a system's star.

## MAGNETOSPHERIC SHIELD II

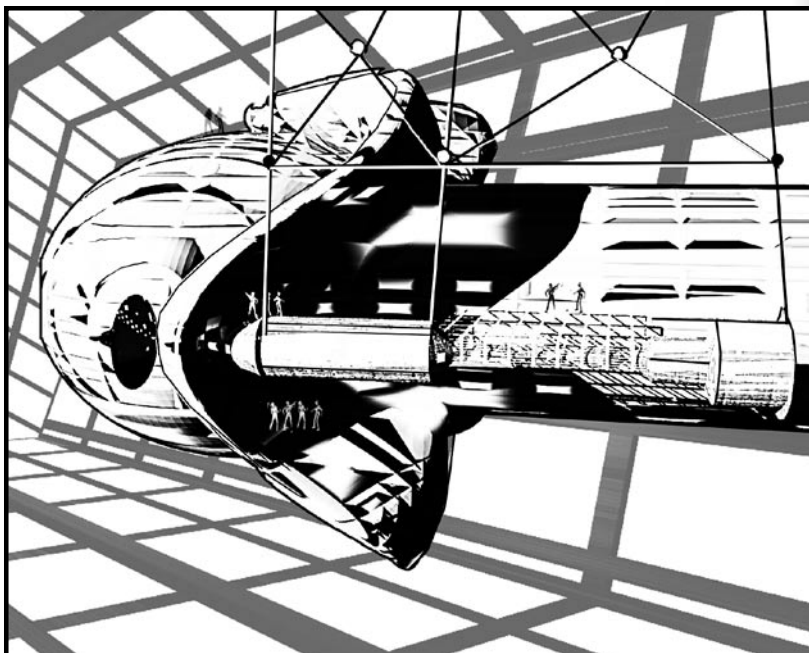
As time passed, designers realized that shields could disperse energy attack as well as radiation. These systems quickly became a mainstay for combat vessels, and the desire to have enough energy for shielding was an early driving factor in star drive improvement.

## MAGNETOSPHERIC SHIELD III

For early sci-fi era games, this represents the ultimate in ship protection against energy weapons, allowing a ship with adequate energy supplies to engage in combat for an extremely long period of time and remain viable.

## MAGNETOSPHERIC SHIELD IV

This shield system is extremely rare, only seen on large military craft with abundant power supplies.



## SPACE OPERA DEFENSIVE SYSTEMS

Space Opera Defensive Systems concentrate much more on Shields than Armor. Shields benefit from the large amounts of power available to Space Opera era ships, recovering quickly after battle to allow the ship to fight again, since shields regenerate with a starship's excess power.

## COMPOSITE ALLOYS

Advanced construction techniques allow ships to be armored using lighter metals, affording the same protection, but slowing the ship down less in combat. Apply the modifiers noted on the table above to any of the Hard Sci-Fi armors for the effect of the use of composite alloys.

**TABLE 5-5: STARSHIP DEFENSIVE SYSTEMS**

Name	Cost	DR	Turn Mod	Power
Titanium/Gold/Beryllium	-	10 Phys, 10 Rad*	---	0
Kevlar-Cellulose Plating	1Kcr	15 Phys, 5 En, 10 Rad*	+1	0
Titanium-Aluminum Alloy	1.5Kcr	20 Phys, 5 En, 10 Rad*	+2	0
Mimetic Organic Plating	2Kcr	10 All*	+3	0
Borated Gel Capillary Exchange	4Kcr	20 All*	+4	0
Magnetospheric Shield I	-	20 Rad**	---	1
Magnetospheric Shield II	4Kcr	20 All**	---	2
Magnetospheric Shield III	6Kcr	30 All**	---	3
Magnetospheric Shield IV	10Kcr	50 All**	---	5

\*Armor is Ablative.

\*\* Shields are Regenerative.

**TABLE 5-6: SPACE OPERA DEFENSIVE SYSTEMS**

Name	Cost	DR	Turn Mod.	Power
Composite Alloys	x1.5	x1.5	x½	0
Lancer Shield	6Kcr	60 All**	6	
Lancer II	8Kcr	70 All**	7	
Joust Shield	10Kcr	80 All**	8	
Freelancer	15Kcr	100 All**	10	
Feedback Plate	40Kcr	*	0	
Feedback II	60Kcr	*	0	
Chameleon Shield	*	None	20	
Chameleon II	*	None	30	
Twilight	*	None	40	

\*\* Shields are Regenerative

### LANCER SHIELD

As science fiction societies move into the space opera era, military concerns begin to become paramount. Ships are no longer designed for the occasional foray into combat while exploring or trading; they are designed for combat first. The Lancer shield represents this, and is a shield designed to protect a ship in combat.

### LANCER II

A slight advancement, this shield attempts to protect a ship's crew better from the growing number of radiation weapons employed in the space-opera era.

### JOUST

A very powerful shield, this system is found on ships with plentiful energy supplies.

### FREELANCER

The ultimate expressions of Shield technology, these shields use such powerful magnetic fields they can even repel physical objects.

### FEEDBACK PLATE

Feedback Plate has energy receptors implanted in a ship's hull capable of transferring energy from weapons fire directly into the Ship's Power Supply. Ten percent of the damage inflicted by energy weapons is added to the Ship's Power for the rest of the engagement.

### FEEDBACK II

More efficient than the prototype version of this armor, twenty five percent of the energy from attacks is added to a ship's Power supply for the rest of the engagement.

### CHAMELEON SHIELD

This shield system attempts to redirect sensor waves around the ship, rendering it invisible. Requiring an enormous power supply, and requiring a ship to forgo the use of shields, this system adds +20 to the DC of any Sensor Operations check directed at the starship. Once a ship with this stealth technology IS detected, attacks have a 20% chance to miss it. An attack by the ship using stealth technology renders it visible until the pilot can succeed in a Skill vs. Skill contest against the sensors operator of the opposing vessel, since the attacking ship can target the source of the weapons fire until the Chameleon ship's pilot can lose them.

### CHAMELEON II

Even more powerful, this system adds +30 to the DC of any Sensor check, and a 30% miss chance once the ship is detected.

### TWILIGHT

The ultimate expression of military stealth technology, this system adds +40 to the DC of any sensor operations check, and even makes the craft so equipped invisible to physical sight. Once detected, a ship with this system still is missed by attacks 50% of the time.

## STARSHIP WEAPONS SYSTEMS

You won't always be able to run or pick your battles. For those times a starship needs teeth. Weapons can be small, defensive weapons, point defense weapons to defend against missile fire, or extremely large, long-range systems that make a ship a mobile weapons platform.



**Damage:** This is the weapons damage against another ship. Should a character be so unlucky as to be targeted with one of these weapons, he receives a Def bonus of +12 (he is treated as smaller than a Micro-sized “ship”). If the character is hit, he takes double the listed damage from a Small weapon, and triple the listed damage from a Large weapon. All ship weapons critical on a 20. On a critical hit, a hit location is rolled, and any damage that gets through the ship’s defenses is applied to the listed system.

**Type:** Whether the weapon inflicts Physical, Energy, or Radiation damage. On a Critical hit, Radiation damage can affect crew in its area.

**Range:** The Range at which the weapon may be used. Only Point Defense Weapons may be fired at a range of 1 Hex or less, which often gives large Capital Ships a weakness against annoying fighters, who can get in close and get under the larger ship’s big guns. This is also the reason why actual point defense weapons are more effective at anti-missile defense, as they can continue to fire when the missile, which is comparatively a very small target, is much closer.

**No Range Modifiers?** Weapon ranges in *Blood and Space* are static. While a bow or a pistol might have an ideal range, but still be able to hit a target beyond that range, ship-to-ship weapons are unable to hit a weapon a single hex outside their range, and some of you are no doubt asking “Why?” The reason is the vast distances involved. A single hex in the tactical scale is several thousand miles.

**Size:** Some of the smaller ships cannot mount a Large sized weapon (see the Hulls above). Large weapons may not be placed on turrets (see the Miscellaneous Ship Equipment). The facing of a weapon must be noted when the weapon is installed, and cannot be changed thereafter unless the weapon removed and remounted (a process costing 500Cr, taking 2 weeks, which can only be done in dry-dock). A Large weapon is usually mounted facing forward or aft, and the target ship must be approaching from that direction to be targeted by the weapon.

## SHIP-TO-SHIP WEAPONS

These weapons usually constitute the main offensive arsenal of a starship. These weapons are excellent combinations of damage and range.

### FOCUSED MICROWAVES

This weapon is a dish approximately 1 foot in diameter which emits stream of microwaves which stay focused on the target area throughout the entire round, heating the area to tremendous temperatures.

### HELIUM ION PLASMA

This weapon first ionizes helium atoms; microwaves in a cyclotron heater then superheats these ions. Finally, once these ions are heated to multi-million degree temperatures (plasma), they are accelerated to tremendous speeds and fired at the target vessel via super-conducting magnets.

### MAGNETIC HARPOONS

These weapons are a large-scale version of the magnetic grapple and are used to immobilize the target ship as a prelude to a boarding action. One harpoon must hit for each size category of the vessel above small. So, one harpoon for a Medium ship, 2 for a Large ship, and 3 for a Huge ship. Once the required number of harpoons has been attached, the target vessel is flat-footed, and boarding actions are much safer (see the Boarding skill for more details).

### MISSILE LAUNCHER, SMALL

This is required to use small size missiles. The missiles themselves take cargo space away from the vessel as well. A small missile launcher has a built-in rack that can hold 3 small missiles. A ship wishing to carry additional missiles can devote large ports to carry 5 extra large missiles, or 10 small missiles.

### MISSILE LAUNCHER, LARGE

This is required to use large size missiles. A launcher of this type can also fire small missiles. A large missile launcher has a built-in rack that can hold 3 large missiles or 6 small missiles. A ship wishing to carry additional missiles can devote large ports to carry 5 extra large missiles, or 10 small missiles.

### POSITRON GR LASER

This powerful, modern laser uses positron-electron annihilation in a Bose-Einstein condensate matrix to produce polarized gamma radiation, which is then collimated and fired at the target vessel.

### PROTON BEAM

This weapon fires a stream of hydrogen ions, accelerated by a small super-conducting magnet at the target vessel.

### RAIL GUN

A rail gun is a large weapon mounted on the exterior of a ship. The rail gun accelerates a massive shell to tremendous velocity along a magnetic rail guide. The difference between a rail gun I and II isn’t the size of the shell, but rather the power of the magnetic launcher, and thus the velocity.

### TURRET

This device allows a weapon to fire in a 180-degree radius. Only small weapons may be turreted.

**TABLE 5-7: WEAPON SYSTEMS****Ship-to-ship Weapons**

Name	Damage	Type	Range	Cost	Size
Focused Microwaves	5d6	En	L (8 Hexes)	1.8Kcr	Small
Magnetic Harpoons	*	*	B (1 Hex)	500cr	Small
Small Missile Launcher	*	*	*	500cr	Small
Proton Beam	4d6	En	E (16 Hexes)	4Kcr	Small
UV Laser	4d6	En	M (4 Hexes)	800cr	Small
Rail Gun I	5d6	Phys	M (4 Hexes)	1Kcr	Large
Rail Gun II	7d6	Phys	M (4 hexes)	1.4Kcr	Large
Large Missile Launcher	*	*	*	1.5Kcr	Large
Xenon Ion Plasma	8d6	En	L (8 Hexes)	2.4Kcr	Large
Positron GR Laser	6d6	Rad	L (8 Hexes)	3.2Kcr	Large
Helium Ion Plasma	7d6	En	E (16 Hexes)	4.6Kcr	Large
Turret	*	*	*	+1Kcr	*

**Point Defense Weapons**

Name	Damage	Type	Range	Cost	Size
PD Cannon	3d6	Phys	S (2Hexes)	100cr	PD
PD Laser	3d6	En	S (2 Hexes)	300cr	PD
AMD Cannon	*	Phys	S (2 Hexes)	500cr	PD

**Seeking Weapons**

Name	Damage	Type	BAB/Acc	Cost	Size
Smart Missile	6d6	Phys	+5/+8	500cr	Small
Smart Missile II	8d6	Phys	+8/+10	750Kcr	Small
Smart Missile III	10d6	Phys	+10/+12	1Kcr	Large
Nuclear Missile	8d6	Rad	+5/+8	2.1Kcr	Large
Nuclear Missile II	10d6	Rad	+8/+10	2.8Kcr	Large
Nuclear Missile III	12d6	Rad	+10/+12	3.4Kcr	Large

**Mines**

Name	Damage	Type	BAB	Cost	Size
Cluster Bomb	6d6	Phys	+1	300cr	Small
Magnetic Mine	6d6	Phys	+3	600cr	Small
Gravitic Mine	8d6	Phys	+4	800cr	Large
Nuclear Mine	10d6	Rad	+3	2.3Kcr	Large
Stealth Suite	*	*	*	+1Kcr	*

**UV LASER**

UV Lasers are a very old weapon, cheap, and affordable. This weapon was the first ship-to-ship energy weapon, now still in use only because of how inexpensive it is to make.

**XENON ION PLASMA**

This weapon is identical to the Helium Ion Plasma, except that Xenon is used instead of Helium. Xenon, being heavier, inflicts more damage.

**POINT DEFENSE WEAPONS**

Point Defense Weapons are smaller, defensive weapons, which are often controlled by the computer of a Starship rather than by human weapons officers. If computer controlled, the BAB of these weapons is the Intelligence modifier of the ship's computer. Although small, these weapons are valuable against fighters and boarding parties, which are often too close to be hit with the ship's main guns. Point Defense weapons only occupy half a port, and are always turreted (this is included in the purchase price).

**TABLE 5-8: BOMBS**

Name	Damage	Type	Cost	Cargo/Size
Small Bomb	8d6	Phys	400cr	100 lbs/Small
Medium Bomb	10d6	Phys	500cr	200 lbs/Small
Large Bomb	12d6	Phys	600cr	500 lbs/Small
Small Nuclear Bomb	10d6	Rad	1.2Kcr	200 lbs/Small
Medium Nuclear Bomb	12d6	Rad	2.4Kcr	500 lbs/Large
Large Nuclear Bomb	15d6	Rad	3.0Kcr	½ ton/Large
Smart Bomb	*	*	+1Kcr	

**Cargo/Size:** Ships can either use weapon ports to carry bombs, at the listed size, or, if the ship has had a Bomb Bay installed, use Cargo space for bombs.

## AMD CANNON

This weapon is always computer controlled. These cannons look for missiles, and fire at point blank range as a last resort to attempt to destroy a missile before it hits the ship. If a starship with Anti-Missile Defense cannons is hit with a missile, there is a 10% chance per AMD cannon that the missile will only inflict half damage.

## PD CANNON

This weapon is simply a smaller Rail Gun.

## PD LASER

This weapon is a small UV Laser.

## SEEKING WEAPONS

These weapons work quite differently from direct fire weapons. An explanation of how these weapons attack their targets can be found in the Starship Combat section.

## MINES

These weapons also have many special considerations, which are explained in the Starship Combat section. Small Mines cost a ship ½ ton of cargo space, Large mines subtract 1 ton of cargo space.

**Stealth Suite:** Using various jamming and masking technologies, this attachment makes mines more difficult to detect. Sensor Operation DCs to detect stealth-suited mines are +5 harder.

## BOMBS

These weapons also have many special considerations, which are explained in the Starship Combat section.

**Bomb, Large:** This is the largest conventional bomb normally carried for planetary bombardment.

**Bomb, Medium:** A powerful bomb, most warships carry at least a few of these.

**Bomb, Small:** These bombs are not really powerful enough to damage a hardened ground fortification. However, these bombs are easily carried aboard fighters

and shuttles, and make excellent anti-personnel weapons.

**Nuclear Bomb, Large:** The ultimate weapon for subduing resistance on a world, these weapons are seldom used, as they tend to make the world itself not worth much.

**Nuclear Bomb, Medium:** A powerful bomb, these devices are seldom used because of their long-lasting effects on the worlds they are used on.

**Nuclear Bomb, Small:** These weapons are the most often nuclear bomb used in combat, as their weaker radiation residues fade much quicker, making them more practical for campaigns whose purpose is to actually conquer and occupy a world.

**Smart Bomb:** Not a bomb at all, but rather an attachment to an existing bomb. This device allows a bomb, when used in conjunction with a Smartsight to be guided on the way down, steered into its target with much greater accuracy.

## SPACE OPERA WEAPONS

### AM TORPEDO I

Considered by many military strategists to be the perfect weapon, this torpedo is loaded with anti-matter and equipped with a micro-pulse engine allowing it to keep up with almost anything. Lastly, this beast has the best targeting computer ever constructed. Since anti-matter releases massive amounts of radiation in addition to other types of energy when it contacts matter, this weapon also serves the functions of old-style nuclear weapons to eliminate crew on enemy vessels. Since the matter-antimatter mix is formed of protons and anti-protons, this weapon has been nicknamed the “proton torpedo” by crews serving on capital ships.

### AM TORPEDO II

Even faster, and more powerful, this weapon increases the advantages of the earlier models.



**TABLE 5-9: SPACE OPERA WEAPONS****Direct Fire Weapons**

Name	Damage	Type	Range	Cost	Size
Mass Driver I	9d6	Phys	L (8 Hexes)	2.6Kcr	Huge
Mass Driver II	10d6	Phys	L (8 Hexes)	2.8Kcr	Huge
Gamma Cannon	7d6	Rad	L (8 Hexes)	3.6Kcr	Huge
Anti-Proton Beam	10d6	En	E (16 Hexes)	9.2Kcr	Huge
Anti-Helium Plasma	12d6	En	E (16 Hexes)	10.6Kcr	Huge
SSAN	13d6	En	L (16 Hexes)	10.8Kcr	Huge
GSTFA	15d6	En	E (16 Hexes)	11.2Kcr	Huge
Tractor Beam	*	*	S (2 Hexes)	2Kcr	Huge
Torpedo Launcher	*	*	*	5Kcr	Huge
Miniaturized	*	*	*	x1.5	½
Banked	*	*	*	x2.5	*

**Seeking Weapons**

Name	Damage	Type	BAB/Acc	Cost	Size
Torpedo I	8d6	Phys	+10/+18	1.8Kcr	Huge
Torpedo II	10d6	Phys	+12/+20	2.1Kcr	Huge
Torpedo III	12d6	Phys	+12/+22	2.3Kcr	Huge
AM Torpedo I	12d6	Rad	+14/+25	3.1Kcr	Huge
AM Torpedo II	14d6	Rad	+14/+30	3.6Kcr	Huge
Proximity I	1/2	*	+4	+1Kcr	*
Proximity II	3/4	*	+6	+2Kcr	*

**ANTI-PROTON BEAM**

Part of the new generation of weapons created after the ability to generate anti-matter efficiently was discovered, these weapons are terribly dangerous. Not only is armor ineffective against antimatter weapons, but it is also damaged by an amount equal to the number of damage dice! Any attack with this weapon that penetrates a ship's shields, will reduce the vessel's armor by 10 permanently. Shields work against these weapons normally. This weapon fires a store of anti-protons, which must be replenished. This weapon stores 4 charges, which must be replenished before the weapon may be used again. Replenishing a charge requires 2 Power be devoted to this purpose for an eight hour period. If the vessel using this weapon has a Vega-Class Anti-Matter Engine, however, only 1 Power over a 4-hour period is required to recharge the weapon.

**ANTI-HELIUM PLASMA**

This weapon takes anti-helium, heats it into plasma, which is then fired at the target vessel. This weapon may only be fired four times before needing to be recharged, and is recharged in the same manner as the Anti-Proton Beam.

**BANKED**

With miniaturization technologies available in the space opera era, weapons will often be "banked", with two smaller versions of the same weapon linked together in one port, delivering a devastating blast of weapons fire with fewer weapon mounts. A banked weapon takes up one category larger port size. For example, a banked large weapon would take up a huge port. If a banked weapon hits with an attack, the ship that fired it gets to roll a second attack with the same weapon.

**GAMMA CANNON**

This devastating weapon serves to weaken ships and eliminate their crews, releasing deadly gamma radiation.

**QSTFA**

The Quantum Space-Time Flux Amplifier is one of the most bizarre and terrifying weapons ever conceived. The Casimir effect is used to filter attractive quantum space-time flux from normal space. The attractive or negative flux is captured, stored, and amplified in a gravitational torus. This weapon ignores both Shields and Armor.

**MASS DRIVER I AND II**

Essentially a rail gun, in the space opera era these weapons are able to deliver larger projectiles at greater velocities.

## MINIATURIZED

Miniaturization technologies allow weapons that were once very large to be constructed to fit smaller vessels. This allows a Large weapon to be turreted if placed in a Large port, or a Large weapon to be mounted in a fixed manner in a Small port. If a Small Weapon is miniaturized and turreted, it fires in a 360-degree radius, but the weapon takes up a Large Port.

## PROXIMITY

This targeting system causes a missile or mine to go off when a target gets near it, as opposed to older models that needed to strike their targets to be successful. Since the weapon is further away, the weapon does less damage. Mines with proximity fuses and stealth suites are greatly feared. This attachment to a missile negates any miss chance due to stealth technology, but not due to ECM, or natural phenomena.

## SSAN

This bizarre weapon is the Strange Spin Anti-Neutron Beam. This weapon uses anti-matter neutrons that have a quantum spin in the reverse direction of matter neutrons.

## TORPEDO I

The earliest Torpedo constructed, these weapons were very unreliable due to their slow speeds. However, they did pack a substantial punch, and were often used as a distraction. These weapons were completely abandoned on military vessels as FTL combat became more and more common.

## TORPEDO II

Considered barely adequate for military use, these missiles still saw use for a long time in the space opera era due to their ability to travel at .99 c. Though easier to score a hit with than beam weapons during FTL combat, these weapons were still too slow.

## TORPEDO III

Called the “Warp Torp” by missile crews serving aboard the Capital Ships where these missiles first saw service, this missile revolutionized FTL combat, and unfortunately ushered in the Galactic War.

## TORPEDO LAUNCHER

This massive accelerator tube is often built right down the main axis of a capital ship. Smaller vessels that have one of these attached are literally built around the massive launcher. This is the smallest launcher capable of launching a Torpedo. A Torpedo Launcher can only fire Torpedoes. A Torpedo Launcher has a built-in launch bay that can hold 2 Torpedoes. Ships wishing to carry additional Torpedoes may devote Huge Ports for an extra 4 Torpedoes each.

## TRACTOR BEAM

A Tractor Beam serves the same purpose in combat as a Magnetic Harpoon, only much more powerfully and efficiently. This weapon actually allows a vessel to be seized at short range (as opposed to the Boarding range of the Magnetic grapple). Instead of needing multiple ports to immobilize a ship (3 Harpoons must be fired to immobilize a Huge ship), the ship must devote more power to its tractor beam. Five Power points must be spent for each Size class of a ship above Small (5 for small or less, 10 for Medium, 15 for Large, 20 for Huge, and so on).

## MISCELLANEOUS STARSHIP EQUIPMENT

No ship needs miscellaneous systems. They are completely optional. However, they can improve the performance of a starship and help define its mission. Miscellaneous systems let a ship do more with its power, get where it's going faster, allow it to land, and not have to carry around bulky oxygen supplies.

A starship may only gain the benefits of each piece of Starship Equipment once. A ship may have more than one installed, but only the best is active. All other miscellaneous equipment of the same type (Bombsights, Thrusters, and so forth) is considered backups, installed to go online if the primary system is destroyed or disabled.

Characters will the *Craft (mechanical)* and the *Starship* item creation feat can build miscellaneous starship equipment at a DC 25.

## ADVANCED THRUSTERS

Advanced Thrusters are actually several additional thrusters installed at various places along the surface of the vessel. In combat, these improve the handling and maneuverability of the vessel, improving its turn modifier.

## AERODYNAMIC DESIGN

This “device” may only be purchased when a craft is first built. In other words, either the craft is designed for atmospheric flight or it isn't. Starships with Aerodynamic Designs take no penalty in atmosphere, and may use active defense in atmosphere. A starship with this advantage may also land on the surface of a planet. The bigger a starship is, the more expensive an Aerodynamic Design becomes. The price listed is for a Small starship. This cost is ½ for Tiny or Diminutive starships (fighters), x2 for Medium starships, x4 for a Large starship, and x8 for a Huge one. This modification is not possible on starships larger than Huge.

## AFTERBURNERS

For the ship with Power to burn, afterburners are a great way to get a speed boost in combat. Each type of

TABLE 5-10: MISCELLANEOUS STARSHIP EQUIPMENT

Name	Cost	Effect Synopsis
Aerodynamic Design	1Kcr	No penalties in atmosphere
Afterburners 6:1	1Kcr	Converts each 6 Power into +1 Acc*
Afterburners 5:1	2Kcr	Converts each 5 Power into +1 Acc*
Afterburners 4:1	3Kcr	Converts each 4 Power into +1 Acc*
Afterburners 3:1	4Kcr	Converts each 3 Power into +1 Acc*
Afterburners 2:1	5Kcr	Converts each 2 Power into +1 Acc*
ALSS	2Kcr	+20% Cargo
Bombsights		
Primitive	500cr	Allows Bombing Runs
Normal	1Kcr	+4 BAB for Bombing
Advanced	2Kcr	+6 BAB for Bombing
Smart	4Kcr	+8 BAB for Bombing
Advanced Smart	8Kcr	+10 BAB for Bombing
Orbital	20Kcr	+10 BAB for Bombing, Orbital
Booster Rockets +1	1Kcr	+1 Acceleration for long journeys*
Booster Rockets +2	2Kcr	+2 Acceleration for long journeys*
Booster Rockets +3	5Kcr	+3 Acceleration for long journeys*
Booster Rockets +4	10Kcr	+4 Acceleration for long journeys*
Buffalo Wings	500cr	-3 Pilot checks in atmosphere
Chaff	1Kcr	50% chance for missile to detonate
ECM 4:1	2Kcr	Converts 4 Power into 10% miss chance for missiles*
ECM 3:1	3Kcr	Converts 3 Power into 10% miss chance for missiles*
ECM 2:1	4Kcr	Converts 2 Power into 10% miss chance for missiles*
Emergency Beacon	500cr	Black Box
Hot Shoes	2Kcr	Advanced Aerobrakes
Identity Broadcaster	-	Broadcast ship information
Jamming Field	2Kcr	Communications DC 20
Phase Capacitor 4:1	2Kcr	Converts 4 Power into +1 energy damage
Phase Capacitor 3:1	3Kcr	Converts 3 Power into +1 energy damage
Phase Capacitor 2:1	4Kcr	Converts 2 Power into +1 energy damage
Ram Scoop	1Kcr	Operating Cost -50%
Thrusters		
Maneuvering Thrusters	2Kcr	-1 Turn Modifier
Superior Thrusters	5Kcr	-2 Turn Modifier
Advanced Thrusters	10Kcr	-3 Turn Modifier

\*+20 Max Acceleration for Hard Sci-Fi

Afterburner has a Power to Acceleration ratio, with more sophisticated systems being more efficient. However, a ship's turn modifier also adds or subtracts to the amount of power per Acceleration, so for larger ships this takes a lot of power. If the turn modifier makes the power per Acceleration negative, then the Power stays at 1, but the Acceleration goes up. Example: Paula has a Capital Starship and wants to add some afterburners to it. If she buys 6:1 Afterburners, the Capital Ship's turn modifier (+4) would make them 10:1. Later, having

installed a carrier deck on the ship, Paula decides to make those fighters **fast** and installs 2:1 afterburners on them. Modifying the afterburners with the ship's turn modifier (-3), she finds she has a ratio of -1:1. This adjusts to 1:3 (1:1, 1:2, 1:3 for each minus respectively). Afterburners are not usable for long periods of time, and cannot provide an acceleration bonus to a large journey (they only work for short bursts in combat). For a long journey, use booster rockets.



## ALSS

The Advanced Life Support System is a marvel of genetic engineering. Microbes with short life spans have been created that ingest CO<sub>2</sub> and excrete oxygen. This system removes the need for bulky oxygen tanks and CO<sub>2</sub> scrubber assemblies, giving the ship more room for valuable cargo. A ship without an ALSS must dock at a star base after a period of one month per size class above small (1 month for small, 2 months for medium, 3 months for large, 4 months for huge, 5 months for capital, 6 months for dreadnought, 7 months for station). An ALSS increases these times to 6 months per Size Class (6 months for small to 3.5 years for a Station).

A ship or station with an ALSS, and 1 Arboretum per 2 Size Classes (3 for a Station or Dreadnought, 2 for Capital or Huge and so on) never needs to resupply. A Fighter without an ALSS is extremely vulnerable without a carrier, needing to resupply every 24 hours. With an ALSS a pilot can last 2 weeks.

Note that an ALSS without the proper number of Arboretums on a space station is pointless since space stations can only use their acceleration to turn and cannot dock at a star base.

## BOMBSIGHT, ADVANCED

This device is the most accurate Bombsight without the use of “smart” technology. Smartsights are treated as this type of sight if used with a non-smart bomb.

## BOMBSIGHT, ADVANCED SMART

This is just like a Smartsight, only more accurate. This device functions as a Bombsight, Advanced if the bombs used with it do not have smart attachments.

## BOMBSIGHT, NORMAL

This device is more accurate than it's predecessor.

## BOMBSIGHT, ORBITAL

This device, when used with smart bombs, allows a ship to conduct bombing runs from orbit (the only way bombs can be dropped by anything other than atmospheric craft), allowing huge capital ships to conduct bombing raids, rather than relying on smaller, more vulnerable atmospheric bombers. If the bombs do not also have smart attachments, this device functions as a Bombsight, Advanced, and will thus not allow a ship to drop bombs from atmosphere.

## BOMBSIGHT, PRIMITIVE

This device is a downward looking scope, which allows bombs to be dropped much more accurately onto a target. This device allows a ship to conduct a Bombing Run (see the Starship Combat chapter for more details on Bombing and Bombing runs).

## BOMBSIGHT, SMART

This device allows the bombardier to actually guide the bomb on its way down, if the bomb is also equipped with smart technology. Otherwise, this device functions as a Bombsight, Advanced.

## BOOSTER ROCKETS

When you have to get somewhere quick, and you can't afford a whole new star drive to get there, Booster Rockets provide a short-term solution. This device provides the listed Acceleration bonus for one voyage. At the halfway point of the journey, these rockets fall away. In Hard Sci-Fi games, Booster Rockets may not raise a starship's Acceleration above +20.

## BUFFALO WINGS

This device is just wings bolted onto the side of an otherwise unwieldy starship. Although they do not make it aerodynamic by any stretch of the imagination, they do make it more manageable. Instead of the normal -5, a craft with Buffalo Wings is -3 to piloting checks (and active defense) in atmosphere. A craft with this modification may not land on a planet.

## CHAFF

This is basically a debris field, composed of standard hull materials (gold, aluminum, beryllium etc), which are dropped behind a starship to confuse a missile. A missile has a 50% chance to detonate while passing through Flak.

## ECM (ELECTRONIC COUNTER MEASURES)

These systems send out signals meant to confuse incoming missiles. Newer models are more efficient, putting less of a drain on a ship's power supply.

## EMERGENCY BEACON

This is a small probe that contains a starship's “black box”. It monitors the craft's current position, records all Logs made by the officers, and all communications in or out. If launched, this beacon will head at +15 Acceleration for the nearest inhabited planet. If a starship is reduced to 0 Hull Points, the beacon will automatically launch.

## HOT SHOES

These advanced Aerobrakes are required to employ the Hot Shoes maneuver (see the ‘Hot Shoes’ Feat).

## IDENTITY BROADCASTER

This device is installed on every ship, and has two functions. One is a beacon to warn other ships that another starship is nearby. Although extremely rare (space is *big*, only large colonies like Ganymede have any

noticeable congestion), this does help prevent collisions. The other purpose these devices serve is to prevent smuggling and piracy. A shipmaster is required to input his point of departure, cargo, and destination into his IB before leaving port. If the ship is boarded by a patrol craft and the information is not correct, the shipmaster risks confiscation of cargo or even confiscation of his ship. The Slashing skill allows this information to be forged, and Pirates are notorious for masking the IB of their combat vessels as lowly Beryllium Haulers. Determining whether an IB has been slashed is a skill vs. skill contest, Slashing vs. Communications Operations.

### JAMMING FIELD

Basically a transmitter set to broadcast overwhelming static across the most commonly used radio frequencies. Any attempt at communication requires a Communications Operation DC of 20 to succeed.

### PHASE CAPACITOR

By shunting excess energy into the feed buffers, energy weapons can be “overcharged”. Though inefficient in terms of power usage, sometimes you just need to kill something.

### RAM SCOOP

This handy device allows the starship to collect its own fuel as it travels. Although a ram scoop won’t completely eliminate a starship’s need for fuel, this device will reduce the operating costs of the ship’s star drive by 50%.

## COMPUTERS

Computers are essential pieces of shipboard equipment. Most spacers would not be caught dead without a good Nav-Computer at the least. Large starships are very dependant on their computers, and since these large starships are often quite dangerous, this has led to virus attacks being integrated into starship combat as much as missiles and mines. The quality of a computer is determined by its intelligence. This isn’t the same brand of intelligence as a human, but merely represents the raw computing power of the machine. In other words, a computer with an Intelligence of 18 is not capable of arguing quantum mechanics with a human of 18 Intelligence. The computer might be able to solve the paradox for the human, but without will and personality (Wisdom and Charisma), is helpless without a human to give it direction. A computer can run a number of programs simultaneously equal to its Intelligence modifier, minimum of one. So a computer with an Intelligence of 18 could run 4 programs simultaneously.

For some skills (those only requiring raw computing power- or intelligence) the computer is capable of making a skill roll independently of a human operator. Navigation is one of these skills, and Nav-Computers have become

helpful aids to space travelers. For most other skills, if the computer has the appropriate program, it grants a human a bonus to his skill (how much of a bonus depends on the quality of the program). A targeting computer is an example of this. A computer does not have the discretion to know when to fire, where, or what to shoot at, but it *can* provide a bonus to a human operator.

Characters with the computer use skill can write programs for a ship’s computer at the DC listed in the software table.

## STARSHIP FACILITIES

Ships can do other things with their cargo space than simply haul freight. This is especially true of military and scientific vessels, which frequently have very little cargo space at all. Facilities are rated by their cost (typically installation plus equipment), how much Cargo space they cost the ship that has one installed, and how much Power they require to operate.

It may occasionally be advantageous to have more than one of the same facilities installed. Multiple Bomb Bays can drop bombs faster; Multiple Carrier Decks can launch fighters faster, and so forth. To gain the benefits of multiple facilities, a separate crew unit of each type must also be employed.

### ADDITIONAL WEAPONS PORTS

This allows the ship to trade out cargo space for more “punch”.

### ARBORETUM

An Arboretum allows a starship to produce some of its own food and oxygen, and provides the same benefit as the ALSS. However, in addition to reducing the amount of air that a starship must carry on board (and giving it extra space for other things), an Arboretum is able to heal one Morale hit to one crew unit per day after starship combat.

### ARCADE

An arcade is another way to keep starship crews happy during long, often boring voyages (punctuated by moments of sheer terror). An Arcade is able to heal one Morale hit to one crew unit per day after starship combat.

### ARMOR TRANSPORT BAY

Tanks are one of the most fearsome weapons ever invented, and although a unit of tanks takes up a lot of space, the sheer power of even one unit of these beasts in ground combat can change the course of a battle. Armored units cannot be used for Boarding or Repelling actions. These units require a great deal of space to fight effectively. Armored units gain a +6 in all Crew Combat

**TABLE 5-11: COMPUTER HARDWARE**

Name	Cost	Effect
Computer	100cr/Intelligence	Intelligence bonus (not intelligence) determines how # of programs
Dedicated	50cr/Intelligence	Computer may only run one program (Must be chosen at time of purchase and cannot be changed)
Miniaturized	200cr/Intelligence	Computer is portable (size of a PDA)
Super	50cr/Intelligence	Computer may not be moved (takes up one ton of ship cargo)
RAM	200cr	+2 Intelligence enhancement bonus for running programs only
Advanced	400cr	+4 Intelligence enhancement bonus for running programs only (not cumulative with RAM)
Super	600cr	+6 Intelligence enhancement bonus for running programs only (not cumulative with RAM)

**TABLE 5-12: COMPUTER SOFTWARE**

Name	Cost	Effect
Antivirus		
Simple	200cr (DC 10)	+2 Intelligence enhancement bonus for resisting viruses
Advanced	400cr (DC 15)	+4 Intelligence enhancement bonus for resisting viruses (not cumulative with Simple)
Superior	600cr (DC 20)	+6 Intelligence enhancement bonus for resisting viruses (not cumulative with Advanced or Simple)
Autopilot	500cr (DC 10)	Able to pilot the ship out of combat and wake pilot
Textbook (1 subject)		
Simple	200cr (DC 10)	+2 to a single knowledge skill check (determined when the program is purchased)
Advanced	400cr (DC 15)	+4 to a single knowledge skill check (determined when the program is purchased)
Superior	600cr (DC 20)	+6 to a single knowledge skill check (determined when the program is purchased)
Memory Virus		
Simple	500cr (DC 20)	Permanently destroys one program (determined randomly)
Advanced	1Kcr (DC 25)	Permanently destroys 1d4 programs (determined randomly)
Superior	3Kcr (DC 30)	Permanently destroys 1d6 programs (determined randomly)
Navigation		
Simple	200cr (DC 10)	+2 to Navigation rolls
Advanced	400cr (DC 15)	+4 to Navigation rolls
Superior	600cr (DC 20)	+6 to Navigation rolls
Targeting		
Simple	1Kcr (DC 15)	+1 to hit with one weapon
Advanced	2Kcr (DC 20)	+2 to hit with one weapon
Superior	3Kcr (DC 25)	+4 to hit with one weapon
Virus		
Simple	1Kcr (DC 20)	Disables simple computers (Intelligence 10 or less)
Advanced	2Kcr (DC 25)	Disables sophisticated computers (Intelligence 15 or less)
Superior	3Kcr (DC 30)	Disables most computers (Intelligence 18 or less)



TABLE 5-13: STARSHIP FACILITIES

Name	Cost	Cargo	Power
Medical Ward	1Kcr	2 tons	2
Sick Bay	2Kcr	3 tons	4
Hospital	5Kcr	5 tons	6
Lab	1Kcr	2 ton	2
Research Facility	2Kcr	3 ton	4
Exobiology Lab	2Kcr	3 ton	4
Astrometrics Lab	2Kcr	2 ton	4
Armorsmith Lab	2Kcr	2 ton	0
Weaponsmith Lab	2Kcr	2 ton	0
Arboretum	1Kcr	None	0
Gymnasium	1Kcr	2 ton	0
Arcade	1Kcr	3 ton	2
HoloArcade	2Kcr	5 ton	4
HoloGymnasium	5Kcr	7.5 tons	6
Hangar Bay	5Kcr	5 tons*	2
Hangar Deck	7.5Kcr	6 tons*	4
Flight Deck	10Kcr	8 tons*	6
Carrier Deck	15Kcr	10 tons*	8
Landing Bay	2Kcr	*	0
Generator, Electric			
Primitive	500cr	¼ ton	+1
Modern	1Kcr	½ ton	+2
Advanced	1.5Kcr	1 ton	+3
Generator, Fission			
Primitive	500cr	2 tons	+2
Basic	1Kcr	3 tons	+4
Modern	4Kcr	4 tons	+5
Advanced	5Kcr	5 tons	+6
Superior	6Kcr	5 tons	+8
Generator, Fusion			
Primitive	2Kcr	1 ton	+2
Basic	3Kcr	2 tons	+4
Modern	5Kcr	2 tons	+6
Advanced	8Kcr	4 tons	+8
Superior	20Kcr	6 tons	+12
Troop Transport Bay	2Kcr	3 tons	0
Heavy Transport Bay	3Kcr	4 tons	0
Armor Transport Bay	6Kcr	10 tons	2
Orbital Transport Bay	10Kcr	6 tons	4
Troop Garrison	15Kcr	10 tons	0
Heavy Garrison	20Kcr	15 tons	0
Armor Garrison	35Kcr	40 tons	6
Security Bay	1Kcr	1.5 tons	0
Brig	2Kcr	3 tons	2
Matter Transmission Chamber	15Kcr	5 tons	5 (when in use)
Bulk Steerage	1Kcr	2 tons	0

Name	Cost	Cargo	Power
Guest Cabins	2Kcr	2 tons	0
Guest Suites	4Kcr	3 tons	0
Luxury Suits	6Kcr	5 tons	0
Presidential Suits	15Kcr	8 tons	0
Cruise Suites	30Kcr	15 tons	0
Bomb Bay	5Kcr	½ ton	0
Hull Reinforcement	5Kcr	5 tons	0
Additional Weapons Ports (Lrg.)	1Kcr	5 tons	0
Additional Weapons Ports (Sm.)	500cr	2.5 tons	0

rolls, and ignore the first two hits dealt to them. For example, if a normal Average Quality marine unit takes one hit, it functions as Inexperienced for the rest of the combat. An Average Armored unit would not lose any quality for the first two hits it suffered, requiring three hits to be reduced to Inexperienced Quality. Armored units are only used to attacked planets or structures. They cannot be used in boarding actions.

## ASTROMETRICS LAB

This advanced laboratory focuses on studying the stars themselves, and always includes the most accurate computer maps of the galaxies. This facility allows a starship to have navigational crew, and also grants a +4 to any navigation skill checks.

## BOMB BAY

This facility allows a craft to carry bombs inside the vessel, dropping them out through specialized doors in the bottom of the hull, using cargo space to carry bombs. Without this facility, bombs must be mounted on the outside of the bomber, using weapon ports instead.

## BRIG

This specialized facility gives a starship a place to put prisoners. Each Brig on a ship gives it a holding area capable of securely holding up to ten people, or one enemy crew unit. Due to magnetic locks, energy screens, and other devices, this holding area is very difficult to escape from (DC 25 on any pick locks or disable device checks to escape). This facility also comes with a security contingent to guard prisoners, and effectively gives a ship with one installed an extra unit of Security (see Security bay for more information on Security forces).

## BULK STEORAGE

This facility allows a Starship to carry 20 Passengers in 3<sup>rd</sup> Class "Comfort". Passage in 3<sup>rd</sup> Class is little better than renting a bunk in a ship's cargo bay. Still, it *is* better.

## CARRIER DECK

This facility actually allows ships to take off and land from a special deck attached to the outside of the craft, like a 20<sup>th</sup> century aircraft carrier, like a Flight Deck, only larger and even more sophisticated. This facility can only be installed on ships Size Huge and above. This facility allows a ship to have Flight Crew. Specialized catapults result in faster launches, reducing the time needed to launch fighters by 3 rounds (normally one fighter can be launched every 10 rounds, modified by Flight Crew Quality). Crack Flight Crews are able to launch one fighter every round from a Carrier Deck, while Legendary Flight Crews can actually launch two fighters per round. Specialized lifts allow more fighters to be carried, as the fighters are raised up from inside the ship to the launch deck. Each Diminutive craft carried on a ship of this size only takes up ½ ton of cargo, with Tiny ships taking up 1 ton of cargo.

## CRUISE SUITES

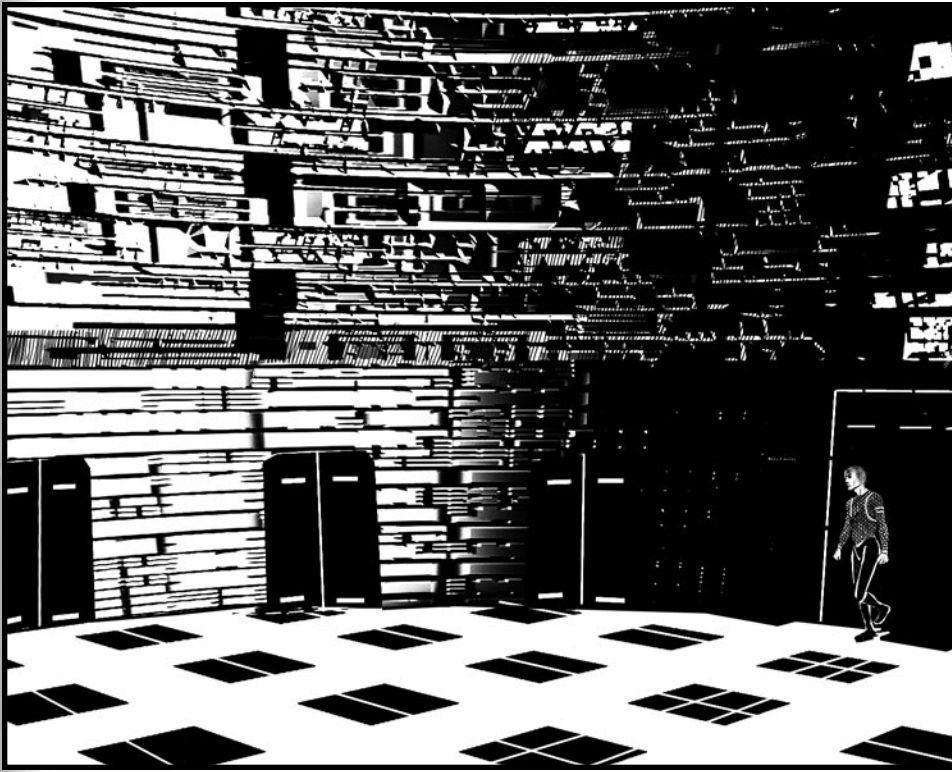
This facility allows a Starship to carry 85 Passengers in 1<sup>st</sup> Class Comfort.

## EXOBIOLOGY LAB

This advanced laboratory focuses on studying alien life and anatomy. This facility allows a starship to carry exobiology crew. It also allows the Medicine skill to be used on non-humans without penalty. If a starship should fight a tactical-sized alien in ship to ship combat, starships with these facilities receive a +4 to hit, in addition to any bonuses to damage granted by exobiology crew.

## FLIGHT DECK

This facility actually allows ships to take off and land from a special deck attached to the outside of the craft, like a 20<sup>th</sup> century aircraft carrier. This facility can only be installed on ships Size Large and above. This facility allows a ship to have Flight Crew. Specialized catapults result in faster launches, reducing the time needed to launch fighters by 2 rounds (normally one fighter can be launched every 10 rounds, modified by Flight Crew Quality). Specialized lifts allow more fighters to be carried, as the fighters are raised up from inside the ship



to the launch deck. Each Diminutive craft carried on a ship of this size only takes up 1 ton of cargo, with Tiny ships taking up 2 tons of cargo.

### **GARRISON, ARMOR**

An Armor Garrison holds 5 Units of Armor.

### **GARRISON, HEAVY**

A Heavy Garrison holds 5 units of Heavy Marines.

### **GARRISON, TROOP**

A Troop Garrison holds 5 units of normal Marines.

### **GENERATOR, ELECTRIC**

Electric Generators have been around for hundreds of years by the time of *Blood and Space*. These Generators are cheap, compact sources of power, but not without their limitations. Electric Generators may not be pushed for extra Power like star drives and more advanced Generators. Also, these devices are expensive to operate, having an Operating Cost of 100 Cr per month for each point of power the Generator provides. This operating cost is not reduced by the presence of a ram scoop on board a ship as these reactors are powered off old-fashioned chemical batteries, which are then traded in when the device is refueled (if the Generator is used for additional power on a ship). The operating cost may be paid in advance (the character could buy extra batteries for emergencies), but if it is ever not paid, then the generator will not function.

### **GENERATOR, FISSION**

Fission Generators are almost as old as electric generators. These devices are cheap, because their technology is well known to any high school science student (in the future), and because of their many drawbacks. No one wants a Fission Generator if he can afford a Fusion model. However, these devices serve admirably in old mining colonies, and other backwater places where cheap is the only concern. Pushing a Fission Generator for more power is a dangerous affair. If a Fission Generator ever develops a Flaw from being Stressed (see Stressing systems in the

Starship Combat section for more details), it experiences a meltdown. This meltdown inflicts one hit of Radiation damage per point of power the generator provides on all systems within 100 feet/Power of the Generator (including the Generator itself). Each hit inflicts 1d10 damage on any living creatures in this radius (Fortitude save for half damage). Fission Generators cost 25 Cr per month for each point of power the Generator provides. If installed on a ship with a Ram Scoop, this cost is halved. If the Operating Cost is not paid, the device no longer functions (or functions at ½ Power if on a ship with a Ram Scoop).

### **GENERATOR, FUSION**

These generators are the choice of all who can afford them, combining the stability of an Electric Generator with the affordability of a Fission Generator, and producing more power than either one to boot. As with most things, you get what you pay for. These devices have the same operating costs as a Fission Reactor. If these devices are pushed and a flaw develops, this is handled normally. There is no chance for a Fusion Reactor to melt down.

### **GUEST CABINS**

Some intrepid merchants make their fortunes showing the exotic sights of the galaxy to tourists. This Facility allows a starship to carry 13 extra Passengers. Note that Cargo space can always be used to transport people. Passengers just travel in comfort. This mode of transport is considered "second class" passage.

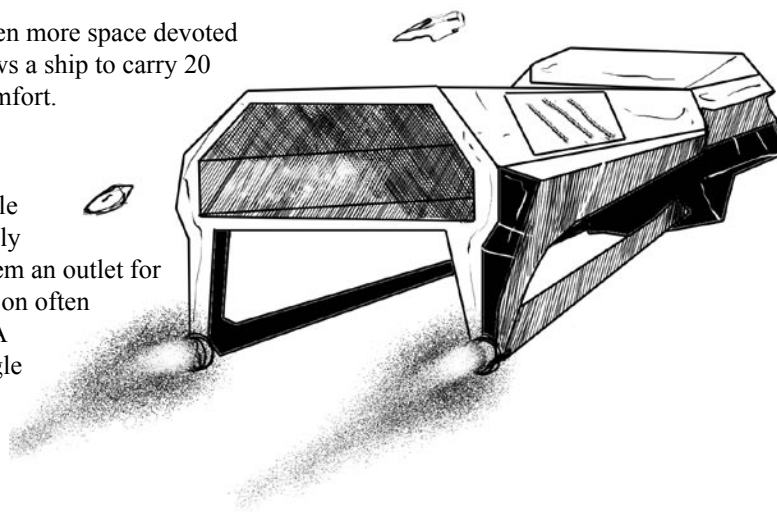


## GUEST SUITES

Like Guest Cabins, only with even more space devoted to Passengers. This facility allows a ship to carry 20 extra Passengers in 2<sup>nd</sup> Class Comfort.

## GYMNASIUM

A Gymnasium provides a valuable outlet to crews on long, potentially dangerous missions, allowing them an outlet for stress and a way to stay in shape on often cramped shipboard conditions. A Gymnasium is able to heal a single Morale hit to one crew unit per day after starship combat.



## HANGAR BAY

This facility allows starships to be stored, and launch from, the inside of the ship itself. In addition to the Cargo lost to the Hangar Bay itself, a ship also loses 2 tons of Cargo for each Diminutive craft carried and 4 tons for each Tiny craft carried. This represents the fact that if a ship carries no ships in its Hangar Bay, then cargo can be stowed there instead. This facility is capable of launching 1 spacecraft every minute (10 rounds). Since ships with Hangar Bays have no Flight Crew, the occupants of the starships are essentially getting the craft ready themselves.

## HANGAR DECK

Like a Hangar Bay, only an entire deck is given over to this facility. This facility can only be installed on ships Size Large and above. This facility allows a ship to have Flight Crew (see the Starship Crews section for more details). Hangar Decks can launch a Fighter every minute (10 rounds), modified by Flight Crew.

## HEAVY TRANSPORT BAY

Heavy Marines are better equipped than standard marines, and gain a +2 on all Boarding and Crew Combat rolls.

## HOLOARCADE

Like an arcade, only including much more sophisticated games, allowing for a much more satisfying game experience, and keeping the crew much happier. A HoloArcade is able to heal two Morale hits to one crew unit per day after starship combat.

## HOLOGYMNASIUM

### *Space Opera*

A HoloGymnasium is a fully interactive 3-D environment, allowing the crew to simulate anything, anytime, anywhere. Whole adventures in simulated worlds could be run in such a room. A HoloGymnasium is able to heal three Morale hits to two crew units per day after starship combat.

## HOSPITAL

The ship contains a fully stocked hospital, allowing advanced surgeries to be done safely and efficiently. Often only one ship per fleet will be so equipped, and this ship usually does not engage in battle itself, instead staying to the rear to receive wounded. Such ships are normally marked with a red cross or other universal symbol marking them as a non-combatant, and it is against the rules of engagement to attack such a ship unless it attacks first. This Facility also allows Medical Crew to heal three extra casualty hits after combat.

## HULL REINFORCEMENT

Each time this facility is taken, the ship's Hull Points rise by 10% (so from 50 to 55, then from 55 to 61, and so forth).

## LAB

A simple research facility, usually consisting of nothing more than an additional computer or two, microscopes, science disks and manuals. This facility allows science and knowledge skills to be used without penalty. This Facility allows a Starship to have basic scientific crew.

## LANDING BAY

A Landing Bay converts a normal ship into a Landing Craft, capable of transporting Marine Units to a planet's surface and disembarking them quickly. Any ship can simply put soldiers in its cargo bay, but a Landing Bay allows those soldiers to leave the ship quickly. Each Marine unit counts ½ ton against the Landing Craft's Cargo, each Armored unit counts 1 ½ ton against the Landing Craft's cargo. A Ship with this facility can offload 2 Marine units per round, or 1 Armored unit per round. Note that this Facility gives a ship no marines, merely a way to transport them to a planet's surface.

## LUXURY CABINS

This facility allows a Starship to carry 33 Passengers in 2<sup>nd</sup> Class Comfort.

## MATTER TRANSMISSION CHAMBER

### *Space Opera*

This device, which takes up a huge amount of space due to all the equipment required, is every marine commander's dream. For 5 Power, one crew unit can be broken down into energy and transmitted up to two hexes, then reassembled. Each MTC can only transport one unit per round, so some ships have more than one to overwhelm enemy forces quickly. Marines entering vessels through this device do not begin combat pinned down, as they can pick an open spot relatively free of interference. Energy fields scramble the "signal" of this device, so it cannot be used through Shields, in Nebulae, during Electromagnetic Storms, or during any other phenomena that would scramble a very powerful signal (GM's discretion).

## MEDICAL WARD

A very simple facility, usually nothing more elaborate than a bed, surgical equipment, and a sterile field. This facility is the minimum necessary for the Medicine skill to be used, and the minimum necessary for a ship to have medical crew.

## ORBITAL TRANSPORT BAY

Orbital Assault armor is one of the great inventions in the history of warfare. These units, when encased in their Ablative Shields, can land on a planet directly, having no need for landing craft. Orbital Troops are +2 on all Boarding and Crew combat rolls, and ignore the first hit dealt them in combat.

## PRESIDENTIAL SUITES

This facility allows a Starship to carry 40 Passengers in 1<sup>st</sup> Class Comfort.

## RESEARCH FACILITY

This facility allows a starship to have science crew to assist the science officer in his duties. The advanced computers and scientific equipment in these labs grant a +4 bonus to any science skill check in addition to any bonuses granted by crew.

## SECURITY BAY

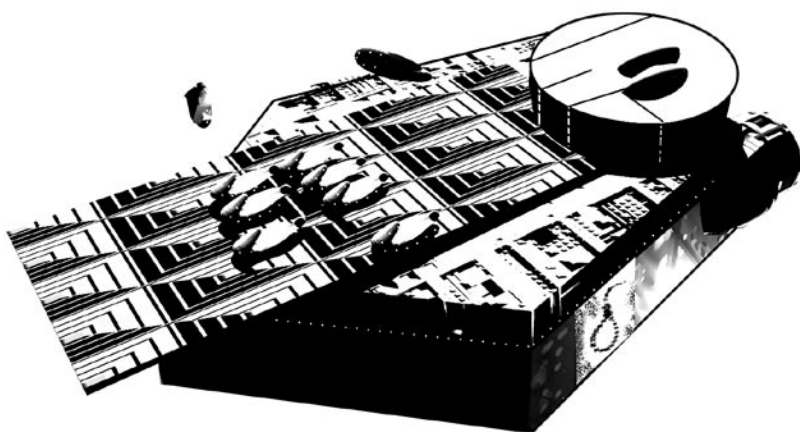
This facility gives a starship a specialized contingent of marines, intended strictly to defend the ship. Security personnel are under the command of the ship's Marine Commander, and have the same quality as a ship's Marine Crew (if any). However, these troops do not have Vac Suits or any of the other specialized equipment (such as magnetic grapple and magnetic boots) to allow them to effectively participate in boarding actions. Even if these troops somehow *are* able to be sent off ship (usually with a Matter Transmission Chamber in the space opera era), they are not trained or equipped for offensive action (usually these troops are only equipped with pistols, as opposed to the heavier weaponry of an actual Marine unit), and take one morale hit (losing a level of quality) if they leave the ship for combat.

## SICK BAY

An advanced facility, with several beds, advanced diagnostic tools, multiple sterile fields, and so on. This is the smallest facility that allows a starship to have Medical Crew (see starship crews for more information). This facility grants a +4 bonus to any Medicine skill check, in addition to any bonuses or penalties from Medical Crew. This Facility also allows Medical Crew to heal one extra casualty hit after combat.

## TROOP TRANSPORT BAY

For each facility of this type installed on a starship, that ship has one unit of Marine Crew.



# CHAPTER 6: STARSHIP CREWS

Admiral Antilles didn't go straight to his mess though, he went to Engineering first. He paused just inside the engine room, taking in the soft weird light that emanated from the Quicksilver Drive that allowed the *Repulse* to exceed the speed of light. He remembered his initial distrust of the device, even though he had led the mission to Mars that uncovered it, and that mission had earned him a place in the Admiralty.

How did the device work? What principles guided its operation? The best scientists and engineers in the solar system had studied the weird thing for almost two years, and they never did answer those questions. They knew what fueled the device: a weird silver substance distilled from deep inside gas giants, and occasionally ejected from stars during flare activity. They knew what it did: allowed a starship to go faster than any had before, even past the supposedly insurmountable light barrier. However, they didn't know *why* it could do those things, or how.

They could build it, they could fuel it, and they could fly it. But, grudgingly, everyone maintained that his or her understanding of it was very low. He watched the weird angles and odd shadows the device threw around the engine room, and imagined the scene as the engine had spiked and let out that temporal pulse that killed his Chief Engineer. He had seen a Quicksilver drive go critical once, in the prototype trials on Titan. A bright light, and odd-pitched squeal, and men's arms were flying in one direction, while the rest of them went another, and their feet stayed right on the floor as if nothing had happened. It would have been funny if it weren't so gruesome.

"This will teach us to break the laws of physics", he thought ruefully. Finally, he saw Lt.. Commander Zeleznik.

"Commander, have you started your report on the temporal spike yet?"

"No, Admiral, I've been trying to get the repairs completed and..."

"Pull the tapes, and the black box, data recorder too, everything you have on it, then join me in my mess."

Sarita frowned at the Admiral's back. Something wasn't right. Was it an inquest? Quicksilver drives required a tremendous amount of maintenance, "babying" as her instructor had once referred to it, and crews had been court-martialed before for not meeting the exacting standards the devices required. Still, now? In the middle of this war or whatever it was? She didn't even know. Still, an enquiry like this was very unusual with the person who would likely take the fall for any neglect, the Chief, being dead anyway.

Lost in her thoughts, Sarita gathered all the materials from the ship's black box and flight data recorders, and headed to the mess.

## STARSHIP CREWS

For larger vessels, crew sizes range in the hundreds. These crews can, if well trained, have as big an impact on the success of their ship as any commander. For game purposes, starship crews are broken down into the following groups: Helm, Science, Medical, Engineering, Marines, Damage Control, Flight, and Weapons. In each of these categories, ship crews are given an experience rating: Raw, Green, Inexperienced, Average, Experienced, Crack, and Legendary.

Below, you will find rules for the benefits and responsibilities of commanding a crew in combat. With large vessels, the commander who gets the most from his crew will usually be the victorious commander. Also in the rules below, you will find rules for how to run combats between crew units, including conducting boarding actions to capture enemy vessels.

## CREW QUALITY

Crew quality is rated in two ways: how that crew unit affects an action if assisting a more skilled shipmate (who must be either a PC or named NPC), and how that crew functions if acting on its own. To act on its own, a crew unit must first be given an *Order* (detailed later) by either a PC or a named NPC.

### RAW

Raw crews are primarily made up of draftees, given a crash course in ship's operations and thrown into battle. No Captain ever wants raw crewmembers aboard his vessel if he can help it. Raw crews can operate by themselves at -6. Even worse, crews of this quality are almost useless under pressure. All orders must be given again each round to Raw crew (so Fire at Will, an order that lasts until cancelled, would have to be repeated each round). Raw crews assisting a PC or named NPC actually get in his way, inflicting a -2 on that character's rolls. No matter what the quality in their chosen field, non-marine crew forced into combat fight as Raw.

TABLE 6-1: CREW QUALITY

Quality	Alone	Assisting
Raw	-6	-2
Green	-4	+1
Inexperienced	-2	+2
Average	0	+3
Experienced	+2	+4
Crack	+4	+4
Legendary	+6	+6





## GREEN

Green crews are fresh out of basic training, but have at least been given the benefit of a full course of training, unlike raw crew. On their own, these crew operate at -4. If assisting another, that character makes his roll at +1. Marine NCOs (a Prestige Class) can train non-Marine crew to fight at this level of ability.

## INEXPERIENCED

Inexperienced crews have seen limited action, combined with extensive training aboard ship by their superior officers. On their own, these crew operate at -2. If assisting another, that character makes his roll at +2. Starship Officers (a prestige class) are skilled enough instructors to impart this experience rating on a crew through training and drills. Otherwise, this crew quality can only be gained through combat. Medical crews of this level are able to heal one crew casualty hit after combat. Damage Control crews of this level are able to remove one hit from a system during combat.

## AVERAGE

Average crews have either seen a fair amount of action, or are well trained and drilled by competent superior officers. On their own, this crew operates at no bonus or penalty. If assisting another, that character makes his roll

at +3. Characters of 5<sup>th</sup> level or higher in the Starship Officer prestige class can impart this level of experience on their crews through training. Otherwise this experience level may only be gained through combat. Medical crews of this quality are able to heal two crew casualty hits after combat. Damage Control crews of this level are able to remove two hits from a system during combat.

## EXPERIENCED

Experienced crews have either seen extensive action, or have received the finest training from the best of officers. On their own, these crews operate at +2. If assisting another, that character makes his roll at +4. Members of the Starship Officer Prestige Class who achieve the maximum level (10<sup>th</sup>) may impart this level of training on crews; otherwise this experience level may only be gained through combat. Medical crews of this quality are able to heal three crew casualty hits after combat. Damage Control crews of this level are able to remove three hits from a system during combat.

## CRACK

Crack crews have seen extensive action, combined with the best of training. These crews operate like a well-oiled machine, showing remarkable bravery and cohesiveness in the most difficult of circumstances.

On their own, these crews operate at +4. If assisting another, that character makes his roll at +4. These valuable crew units are thus often allowed to operate alone, as they perform as well, if not better than they do with supervision. This experience rating may only be conferred on crews through combat. Medical crews of this quality are able to heal four crew casualty hits after combat. Damage Control crews of this level are able to remove four hits from a system during combat.

## LEGENDARY

Legendary crews are those groups of men and women capable of answering the call in dire situations where the fate of billions lies in the balance. In addition to granting a +6 skill check to any roll that their crew type modifies, Legendary crews are capable of amazing actions not possible for any other crew type, listed below. This experience rating may only be gained in combat.

**Helm:** Legendary Helm crews allow the primary pilot to use his starship evasion ability (if any) to reduce ship's damage, no matter how large the vessel. Normally Evasion may only be employed on medium or smaller spaceships.

**Science:** Ships with legendary science crews are

immune to all computer viruses. Legendary science crews also contain specialists in very obscure fields, such as ancient history, alien languages and customs, oort cloud resonance fields and so on. These crews provide their bonuses to all science related skill checks whether the ship has the appropriate lab or not.

**Medical:** Legendary Medical crews are able to heal all crew casualty hits but one after a battle. These crews also provide such sophisticated medical care that all crew members gain the benefits of the Panimmunity feat while serving aboard this vessel, since the medical staff is always on top of the most obscure viruses present on any planet the PCs visit and inoculates away teams regularly.

**Engineering:** Ships with Legendary Engineering crews negate the first 4 points of acceleration loss due to engine damage that a starship suffers in battle.

**Marines:** Ships with legendary Marine crews never suffer damage from hit and run attacks.

**Damage Control:** Legendary Damage control crews allow a ship to perform dry dock level repairs in deep space. These crews are experts at deep space EVA repairs and zero gravity operations. During combat, this crew may repair four hits to a system, and arrive in one round, regardless of ship size.

**Flight:** Ships with Legendary flight crews are never surprised when their ships are out on patrol.

**Weapons:** Legendary Weapons crews are so skilled with their weapons that the ship gains the benefit of a point defense weapon for each normal weapon mounted on the ship.

## CREW ORDERS

While crew can function perfectly well as assistants to their superiors, there is a lot to do in combat, and sometimes the PCs will need their crew to operate independently. In the description of each crew specialty are a number of *Orders*. Giving an order to a crew unit is a move-equivalent action, which will be performed by that unit either for a specified amount of time (listed in the order's description), or until the order is cancelled by another order (if no time limit is given).

### HELM

Helm crews provide bonuses to the Pilot skill of the primary helmsman. On larger ships, with high defense penalties, this is especially important, and represents the difficulty in maneuvering a very large, capital size spaceship with a small crew. A helm crew can be given the following orders:

**Steady as she goes:** Ship maintains current heading and speed, alerting a superior officer if attacked or if something unusual happens (a ship given this order does not need computer-aided auto piloting to fly safely without PC supervision).

**Evasive Action:** The ship gains a bonus to its Defense

equal to the Crew modifier, but suffers a penalty to hit on all attacks of twice that amount. This order lasts until cancelled (by the Steady as she goes order).

**Hard About:** This order reduces the ship's turn modifier by an amount equal to the Helm Crew's bonus for one round. The ship suffers a penalty to all piloting checks of twice this amount for one round. After one round, this order defaults to Steady as she goes.

**Silent Running:** This order raises the DC of any Sensor Check to detect the vessel by the Crew modifier. Any ship attacking or exceeding a speed of Acceleration +2 forgoes this bonus.

## SCIENCE

Science crew provides bonuses to Sensor Operations, Navigation, and Computer skills, and also to damage rolls against aliens large enough that they must be fought by a starship. While any starship may have a science officer, to gain bonuses for science crew, a ship must have the appropriate lab for that crew to work in (see Starship Facilities for more information). So, a starship that wished to gain bonuses to navigation checks would need an Astrometrics Lab, while one looking to fight ship-sized aliens would want an exobiology lab.

**Long Range Scan:** The ship gains a bonus to Sensor Operations checks in the Sensor and Extreme range categories equal to its Crew modifier, and suffers a penalty of the same amount at all other range categories. This order allows a commander to make his ship harder to surprise, giving more warning of an impending attack.

**Detailed Scan:** This order gives the commander of a ship a breakdown of the combat abilities of an opponent (or potential opponent) in the following categories: number of weapons, total amount of damage per round, amount of HP, defenses.

## MEDICAL:

Medical crews assist the lead physician, allowing him to provide long-term care (via the Heal skill) to the entire crew. Medical crews also remove Crew Casualty hits after a battle. Any hits that are not healed within 24 hours of a battle (Medical Crew may only restore Hits to crew once per day) are considered killed. Any damaged crewmembers not healed are permanently reduced to their new Quality (representing raw recruits mixed into a more experienced unit to fill it out).

**Quarantine Protocol:** Starship medical crews are trained to handle outbreaks of disease, both known and unknown. If the ship encounters a disease, crewmembers gain a +4 Save, plus any positive Crew modifier to prevent catching the disease once this order is given.

**Prepare for Casualties:** This order may only be given before combat commences. It allows the ship's medical staff to prepare for the onslaught of wounded crew. If a ship has enough warning to give this order before combat begins, its medical crew will be able to heal one extra crew casualty.

TABLE 6-2: CREW SKILLS

Crew Type	Skills Modified
Helm	Starship Pilot
Science	Computer Use, Knowledge (Any), Navigation, Research, Sensor Operations
Medical	Craft (Pharmaceutical), Treat Injury
Engineering	Communication Operations, Craft (any but Pharmaceutical), Demolitions, Jamming
Marines	Boarding, Craft (armorsmith, weaponsmith), Demolitions, Survival, Tactics
Damage Control	Craft (Starship Repair and Maintenance)
Flight	Sensor Operations, Starship Pilot, Tactics
Weapons	Craft (weaponsmith), Tactics

## ENGINEERING

Engineering crews are responsible for the care and maintenance of a ship's engines, and grant bonuses to Power. Engineering crew also divide Ops responsibilities with Science, with Science running the ship's sensors, and Engineering manning the communications gear.

**Jam all Transmissions:** Uses the Jamming Skill (at Crew Quality Skill) to attempt to Jam all communications.

**Divert Power:** Shuts down Facilities to give a ship additional power for Shields and Afterburners in combat. A number of Facilities may be shut down, and their power regained, equal to the Crew modifier each round.

**Emergency Power to Weapons:** Adds an amount equal to the crew modifier to the damage from all energy weapons for a number of rounds equal to the Crew Modifier. A ship takes one Engines hit each time it uses this Order.

**Emergency Power to Shields:** Adds an amount equal to the crew modifier to the recharge rate of shields for a number of rounds equal to the Crew Modifier. A ship takes one Engines hit each time it uses this Order.

**Emergency Power to Thrusters:** Adds an amount equal to the crew modifier to the ship's Acceleration for a number of rounds equal to the Crew Modifier. A ship takes one Engines hit each time it uses this Order.

## MARINES

A ship has one unit of marines for each troop transport bay it possesses (see the Starship Facilities section for more information). Marines are responsible for Boarding actions, and also Repelling boarders.

**Board:** A given number of units (set by the Officer who made the order) will leave their home ship and attempt to gain entry in an enemy vessel at boarding range.

**Neutralize Resistance:** Crew must have already succeeded at the Board Order to perform this action. Crew combat against the opposing ship's marines will take place. This order will be carried out until cancelled, or until all marines (on either side) are killed or dispersed.

**Seize Vessel:** This order can only be given after the Neutralize Resistance order has ended with the death or dispersal of all units aboard the enemy vessel. Marine units proceed through the ship seizing critical areas in an attempt to take control of it. Seizing a vessel takes 1

minute (10 rounds) per Size category: 1 minute for Tiny, 2 minutes for Small, 3 minutes for Medium, 4 minutes for Large, 5 minutes for Huge, 6 minutes for Capital, 7 minutes for Dreadnought, and 8 minutes for Station. Crew quality subtracts from this time: Experienced Crews subtract one minute, Crack crews 2 minutes, and Legendary crews 3 minutes. Each doubling of marines also subtracts one minute (-1 minute for 2 units, -2 for four, and so forth).

**Hit and Run:** Marine Crew must have already succeeded at the Board Order to perform this action. The Marines attempt to attack and destroy one system (chosen when the order is given). On the way to this target they must succeed at 1-3 crew battles against enemy marines. If successful, Marines inflict a critical hit on that system, doing ten points of damage per level of quality to the system *and* any crew stationed there.

**Repel Boarders:** Any marine crew on board will attempt to prevent enemy marines from successfully executing the Board order, and take up defensive positions throughout the ship. When this order is given, a unit of Marines will go to the ship's airlock to prevent boarding. If a ship has more than one unit of Marines, at least one will go to the Bridge as well. To successfully Board, marine units must succeed at a skill vs. skill check. If this order has been given and enemy Marines do make it on board, a combat with at least one unit of Marines immediately commences in the ship's airlock, with the enemy Marines beginning the combat pinned down (see crew vs. crew above).

## DAMAGE CONTROL

Damage Control crews provide bonuses to Repair skill checks.

**Damage Control (specify system):** Damage control crews will repair one hit to specified system each minute (10 rounds), minus a number of rounds equal to Quality. If the ship is in combat, at least one hit on each system cannot be repaired.

## FLIGHT

A starship must have a hangar deck, flight deck, or carrier deck in order to have flight crew. While craft with Hangar



Bays can launch fighters and shuttles, these craft have no specialized crew to assist in that process. A ship may launch one fighter each minute (10 rounds) modified by Flight crew Quality (so one fighter every 16 rounds for Raw Flight crews, to as fast as one fighter every 6 rounds for Crack Flight crew).

**Dogfight:** Engage enemy fighters in crew vs. crew combat. Note: Players must agree to resolve fighter combat as crew vs. crew, as a unit of fighters being put at risk might be worth well over 50Kcr. In general, use normal ship combat rules unless a lot of fighters are involved.

**Picket:** Fighters will swarm around the designated ship, acting as a number of extra point defense weapons equal to either the number of fighters on Picket duty, or the Flight Crew Quality, whichever is lower.

**Patrol:** Each fighter unit patrolling the area grants a bonus to all Sensor rolls to detect incoming craft equal to the crew modifier.

**Escort:** The fighters will swarm around the designated ship, granting a defense bonus equal to their crew modifier.

**Interdiction:** Fighters are good for setting up blockades to prevent craft from passing through an area. If any craft pass through their interdicted zone (typically around one planet), the fighters have a chance equal to their crew modifier times 10% to get an attack of opportunity against that ship (Minimum Chance 10%). Obviously, a ship with several units of fighters can pose a significant risk to anyone attempting to break through.

**Strafe (target):** The Fighters will attack the designated target until it is destroyed, they are, or the order is cancelled.

## WEAPONS

Weapons crews provide bonuses to hit with ship's weapons. Except for weapons fired by PCs, the Weapons crew also determines the BAB of all other ship's weapons.

**Fire at Will:** Each weapon on the ship not manned by a PC or "named" NPC will fire at the BAB of the ship's weapon's crew.

**Hold your Fire:** Cancels the Fire at Will command.

## CREW VS. CREW

There are some instances where the crew of one ship will fight the crew of another (most often involving Boarding actions or Wings of Fighters Dogfighting), or where one crew unit will do something contested by a crew unit on an opposing ship (one crew unit attempting to send a message, while another crew unit attempts to jam that message). In these cases, a crew vs. crew contest is engaged. This acts like a skill vs. skill contest between characters. Each unit rolls a d20, modified by its Quality Rating, and the highest roll wins.

## CREW COMBAT

If the contest is actual combat (one unit of Marines attempting to board, another attempting to repel boarders), the loser suffers one hit for each five points by which it lost the contest. Note that it is possible to win a round without inflicting damage if a round is won but by less than five. Combat continues until one unit defeats another, resulting in retreat or destruction.

## CREW DAMAGE

Each hit inflicted on a crew unit degrades its crew quality by one step. For example, a hit on a *green* unit reduces it to *raw* quality or a hit on an *average* unit reduces it to *inexperienced*. This reflects either that unit's decreased willingness to fight (*morale hit*), or its dwindling numbers (*casualty hit*).

Whenever crew take damage, half of that damage (rounded up) is a temporary loss of quality due to the shock and fear of combat, and half (rounded down) is due to actual injury and death. These two types of damage, Morale Hits and Casualty Hits, are explained below.

If a unit is reduced below Raw status, its fate is determined by what type of hit that last damage was: if a unit is reduced below Raw by a morale hit it retreats in poor order and may be recovered after combat; if a casualty hit inflicts the last damage, the unit is destroyed utterly and is lost.

**Morale Hits:** Morale hits are temporary losses of crew quality due to shock and confusion. Morale hits are "healed" by Starship Facilities that give crews a place to unwind after a stressful encounter, or by shore leave. See the Starship Facilities section for more information on facilities that "heal" morale hits. Shore leave may heal a single morale hit per day to as many crew as the ship's captain wishes to send down.

**Casualty Hits:** During battle, casualty hits are treated just like morale hits; however, casualty hits may only be healed by the ship's medical staff and facilities. Any crews that cannot be restored within twenty-four hours after a battle are dead. The crew that suffers deaths is permanently reduced to its new level of quality, after which it can begin gaining experience normally. This is akin to a single 3E character suffering permanent level loss.

## HEALING CREW DAMAGE

There are two different kinds of damage that may be inflicted on a crew unit: morale and casualty. Each of these two types of damage is healed in different ways. Morale damage is healed by shore leave, or crew facilities that serve to allow the crew to unwind on board ship, such as Gymnasiums, Arboretums, Arcades and so forth. This damage will recover with time, but if a ship must fight several battles in a row, it will continue to feel the effects of fatigue for some time. A ship's medical crew,

augmented by the ship's medical facilities, heals casualty damage. These hits are repaired immediately after combat. Any casualty hits beyond the ability of a ship to heal are marked off permanently and counted as crew deaths.

## DRIVEN BACK

If a Crew Unit wins four or more combat rounds in a row it has "Driven Back" its opponent. The unit that has driven back its opponent gains a +4 on all attack rolls until it loses a round. After which it still gains +2 (for having the initiative) until it loses *another* round.

## PINNED DOWN

A unit that is under fire from multiple directions, or is unable to move freely because it is fighting from a doorway, elevator, or airlock is pinned down. If your opponent is pinned down, you gain a +2 on all crew combat rolls. If your opponent is pinned down because it is fighting from a doorway or airlock, it must only win a round (fighting its way free from the enclosure) to no longer be pinned down. A unit that is pinned down because it is outnumbered must successfully destroy one of the units and even the odds in order to no longer be considered pinned down.

## SEIZE THE INITIATIVE

If a Crew Unit wins two or more combat rounds in a row it has "Seized the Initiative". The unit that has seized the initiative gains a +2 on attack rolls until it loses a round.

## STRENGTH IN NUMBERS

Units can work together for a common goal. If two units work together on a task, they gain a +2 for each unit over the first. In general, only units that have skills in common may work together (such as Weapons and Marines, or Engineering and Damage Control), but the GM may allow crew to work together whenever he sees fit (such as allowing Science and Medical to work together on the cure to a rare alien disease for example).

In combat, this system can be also be used to determine the bonus units get when they outnumber an opponent. If one group of units outnumbers another, they get a +2 modifier to their crew roll. For each factor the one group outnumbers another, they gain an additional +2 modifier. For example, 6 units attacking 3 units would get a +4 modifier.

Factor	Modifier
Outnumbered	+2
X2	+4
X3	+6
X4	+8

## NON-MARINES REPELLING BOARDERS

A Ship without marines (or a ship whose Marines have all been killed), may still attempt to repel Boarders (non-Marine Crew fight as Raw Marine crew when engaged in combat). Ships with Marine NCOs (see the Prestige Class Chapter for more information) crews fight as though Green instead (since the Marine NCO will have given the entire crew a crash course in combat training).

## JOINING A UNIT

Characters have many options open to them to become skilled commanders in these rules. Squad/Squadron Tactics, the Leadership Feat, and several Prestige Classes (Marine Commander, Marine NCO, Squadron Commander, Starship Officer, Starship Commander) all allow the PCs to lead troops into battle. What this does is allow a PC or "named" NPC to join a crew unit, risking his life with them, but *greatly* enhancing its effectiveness. Each of those feats or prestige classes mentioned above gives details for its effect on Crew vs. Crew contests. If a Crew Unit commanded by a PC or named NPC suffers damage, the character does as well. For each hit of actual damage suffered by the unit (PCs are immune to morale hits), the character suffers 1d6 of damage. If the character is killed before his unit (an unlikely scenario), that unit immediately suffers 2 Morale Hits, which will likely cause it to disperse.

## CREW COMBAT EXAMPLE:

"Beta Team" is a Crack Marine Unit, stationed on board the legendary Carrier the *USS Repulse*. During combat against pirates, the ship's commander, Admiral Niles Antilles, decides the pirates need to be brought before the local magistrates, tried, and convicted as an example to the rest of the pirate scum. Disabling a small ship with the *Repulse's* magnetic harpoons, he sends Beta Team in to secure the vessel. This particular pirate ship has 2 Units of its own Marines, one Green, and one Average, who stand ready to Repel Boarders.

Admiral Antilles gives the *Board* order to begin the combat. The Captain of the Pirate ship gives the *Repel* order. The Repel Order causes the Pirate vessel's two units of marines to move to ready stations to defend the vessel. One unit moves to the Bridge (the Average unit), while the other, the Green unit, moves to the airlock, attempting to prevent the enemy from gaining access to the vessel. Since the Boarding itself is being contested, Beta Team must succeed at a skill vs. skill in order to gain entry to the vessel. Beta Team rolls a 15, +6 for Quality, for a total of 21. The Green troops resisting the action roll a 17, -4 for Quality, or a 13. Admiral Antilles receives the message in code from his Marine Commander that Beta

Team has gained entry to the vessel.

However, there is no time for celebration, as the Green Marines immediately attack Beta Team in the airlock, gaining +2 to this attack roll since Beta Team is pinned down. In the fire fight that follows, the Marines roll an 11, -4 for Quality, +2 for their opponent being pinned down, for a total attack roll of 9. Beta Team rolls a 13, +6, for a total of 19, winning the round. Since they won the round by 10, Beta Team inflicts two hits on the Green Marines, a single morale hit, and one casualty. Since the last hit was a casualty hit, the Green unit is destroyed, falling under a withering barrage of fire from their hard-bitten opponents.

The *Seize Vessel* order comes in from Admiral Antilles at the start of the next round. Beta Team moves from the airlock and heads for the pirate vessel's bridge. As Beta Team emerges from the elevator onto the small vessel's bridge, they are again pinned down by gunfire. The Average Marines roll a 15, +0 for Average Quality, +2 for their opponent being pinned down, for a total of 17. Beta Team rolls a 6, +6 for quality, for a total of 12, and loses the round, suffering one Morale Hit. This hit degrades Beta Team to Experienced. Combat continues in the second round, with the Average Marines rolling a 20, +2 for their opponent being pinned down, for a total of 22. Beta Team rolls a 16, +2 (they are now only experienced) for a total of 18. Although Beta Team lost the round, they suffered no damage, since they lost by less than 5 points. This round the Average Marines roll a 13, +2, for a total of 15, and Beta Team responds with a withering counterattack, rolling a 20, +2. Beta Team wins the round by 7, inflicting a single morale hit on the Average Marines, degrading them to Inexperienced. Worse for the pirates, since Beta Team has now won a round, they are no longer pinned down. Beta Team rolls an 11, +2 for a total of 13. The Pirates roll a 10, -2 for their new quality of Inexperienced, or 8. Beta Team has inflicted another hit, this one a Casualty hit, downgrading the Pirate marines to Green. Since Beta Team has now won two rounds in a row, they have *Seized the Initiative*, gaining a +1 to their next attack. Beta Team rolls a 14, +2 for Quality, +1 for Initiative, and totaling 17. The dwindling numbers of Pirate marines attempt to respond, rolling a 4, -4 for their new status of Green. Winning the round by 17, Beta Team inflicts 3 hits on the Pirates, 2 Morale and one casualty. Since the last hit was a Morale hit, the Pirates surrender, and are taken into custody by the leader of Beta Team. The rest of the combat against the bridge crew is short and uneventful, many of the Helmsmen not even being armed. Beta Team reports quickly that the vessel is theirs.

After the battle, Beta Team's two hits must be addressed. The *Repulse's* Sick Bay and Medical Staff are able to heal the casualty hit, while the crew's access to a Gymnasium heals the Morale Hit. The next time Admiral Antilles calls on Beta Team, the unit will be able to respond at full strength.

## GAINING EXPERIENCE FOR CREWS

As a starship faces encounters, its crew will gain experience just as the PCs do. Each crew unit gains 1 XP each time it successfully performs an order in combat, each time it assists a PC or named NPC with a roll, or wins a combat. Finally, each unit gains 1 XP for each adventure it is on that involves ship-to-ship combat, even if that unit did not participate in the battle (you learn a little something just by being shot at, like when to duck).

Quality	Experience
Raw	0 XP
Green	5 XP
Inexperienced	10 XP
Average	20 XP
Experienced	40 XP
Crack	100 XP
Legendary	200 XP

## CREW PAY, MONTHLY

Traveling the stars isn't just an adventure; it's also a job! For the crew of a starship, a monthly salary must be paid for each crew unit, as detailed on the table below. For each month salaries are not paid, all unpaid crew units take a single morale hit that cannot be healed until they are paid in full. If this morale damage causes the crew's quality to drop below Raw, those crew units either desert, or mutiny.

Quality	Pay/Month
Raw	10cr
Green	20cr
Inexperienced	40cr
Average	100cr
Experienced	150cr
Crack	250cr
Legendary	1000cr



# CHAPTER 7: STARSHIP COMBAT

Sarita sat, stunned, as she listened to Lieutenant Lewis explain again what was going on. Her mind still hadn't completely processed it, when Captain Armstrong spoke up, "And it's no longer a theory Admiral. We now have conclusive proof that the temporal spike threw the *Repulse* back in time. I tapped into the LaserNet communications grid, and picked up a transmission.

The Captain pressed a button set into the metal table, and a voice they all recognized, and didn't, filled the room, "Mayday, Mayday, this is *Antietam*, Ensign Niles Antilles currently in command. We were ambushed by... by the rebels... and are in rough shape. The fusion drive is fried. The area seems clear from what we can see, but our radar is shot. We need emergency evacuation of wounded. Repeat this is the *U.S.S. Antietam* requesting immediate..."

The Admiral pushed the button, plunging the room into an uncomfortable silence. Then he pushed another button, and Lieutenant Cook's voice replaced his in the room, "Bridge here."

"Lieutenant, set a course, best possible speed without using the Quicksilver Drive, take us toward Neptune."

"Neptune Sir? Admiral, I've been picking up some very odd traffic on the comm. nets and..."

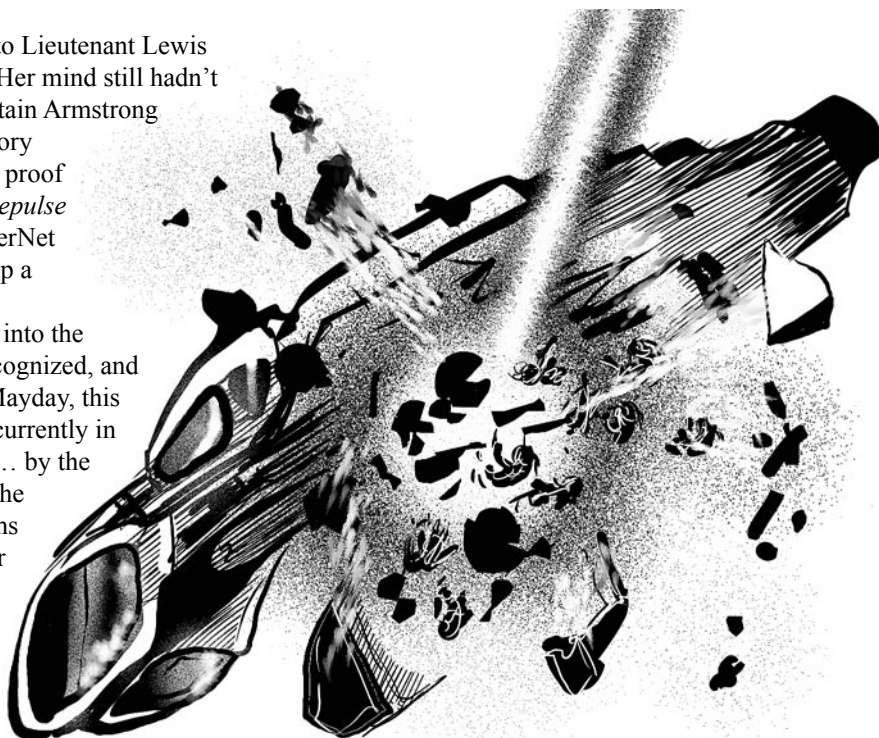
"Disregard any transmissions Lieutenant. Avoid all contact with ship traffic, and proceed to Neptune. Best possible speed. Antilles out."

Captain Armstrong spoke first, "Neptune Captain?"

"That's the frontier Captain, as far away from the war as possible, right now Neptune has a few Corporate mining camps and some hermit shanty towns, but no one who would be able to spot us. We cannot allow the ship to be seen. Even that might alter the timeline in a disastrous way. If a Fleet vessel saw us they might assume the Rebels have much more technology than the Sol Government, they might sue for peace. You were there Bill, you know how close they came to giving them the Jovian Moons."

The room was silent once again.

They're always watching you, the Admiral repeated in his silent mantra, standing up and breaking the silence. "You three understand this situation better than anyone. I want a status report in three hours about how we are going to reverse this accident and return to our own time. But understand this people, I will not be responsible for altering the time line. This ship can never be known to exist at this time. The Sol Government is in disarray, on the verge of collapse because of the rebellion. This is the



worst possible place for us to be. It can never be known this ship was here. Now. If we can't get home, I will scuttle the ship. Fly it right into the heart of Neptune if I have to. Is that understood? This ship is expendable. We all are. We have a duty to perform."

And with that, he left the three of them alone in the conference room and headed for the bridge.

## ROLES IN SHIP COMBAT

Before combat ever begins, there is one thing the GM and the characters need to know: what their characters' roles are in any ship combat situation. Although *Blood and Space* can be played as a pure war game, it is much more satisfying when characters have a personal stake in their ship. Also, making the game character driven leads to campaigns, where the effects of one encounter carry over to later ones, and where the effects of a series of encounters carry over from game session to game session, a much more satisfying way to play than a series of meaningless encounters.

A well-run starship is like a well-run fantasy party. When you start a new campaign, experienced players make sure all the major roles are filled: who's the tank; who's the cleric; who's the mage and so on. A ship operates on the same principles, but players might not be as familiar with what the essential roles are. The

following is a guide for both players and Game Masters to help create balanced parties, leading to a more satisfying game.

## HELMSMAN

Every starship needs a helmsman. The Helm is a crucial component to any successful crew, and the character that takes this role carries a lot of weight on her shoulders. The piloting skill of the primary helmsman determines the Defense for the entire starship. Also, piloting checks will frequently be called for by terrain, and special attacks. Finally, there are numerous “stunts”, special maneuvers that a pilot can take (these are feats, see the Skills and Feats chapter for more information on these), that allow a ship to perform special actions not normally allowed to it.

**Who can do it:** Pilots and Hotshots are obviously ideal choice for Helmsman, though Haulers and Smugglers excel in this role as well.

## WEAPONS

Even the fastest ship needs to stand its ground occasionally. At times like that, making the most of every attack will determine which ship lives to fight another day, and which ship gets picked over by the scavenger trawlers. On a medium size vessel with 3-5 weapons, several characters might fill this role.

**Who can do it:** Being a weapons officer is all about you BAB, and Marines and Mercs have the best BAB in the game. Hotshots, Pilots, and Smugglers are close behind, as these characters have good BAB, and also tend to be high Dexterity characters. Although not normally thought of as a combat class, don't forget the Hauler in this role. Although his BAB is poor, his Junkyard Dog ability can compensate for this if the ship's merchandise is at stake, making the Hauler a good secondary weapons officer on board a merchant vessel.

## MEDICAL

No fight is ever won without suffering some damage. Medical characters are the ones who put the crew back together after combat is over.

**Who can do it:** For this role, you want a Doctor if at all possible. However, Scientists, with their high intelligence and plentiful skill points, could also fill this role in a secondary capacity.

## ENGINEERING

Just as important as patching up the crew, is patching up the ship itself. No craft has ever been towed back into space dock by its crew, no matter how healthy.

**Who can do it:** As her name implies, the Engineer class is the perfect candidate to fill this role. However, Scientists, with their high intelligence and plentiful skill points may be pressed into service here, and Pilots and Hotshots can also perform adequately in this role, since both have Repair as a class skill.

## OPS

Ops are a catchall for all important ship functions not covered elsewhere. Sensors and Communications are the chief roles of the Ops Officer, who is an important, and often overlooked character, as she is the eyes, ears and mouth of the starship. A ship with a good Ops Officer can summon help, avoid surprise, and talk its way out of trouble when another ship could not.

**Who can do it:** Engineers tend to fill the Ops role, with their good technical skills. Scientists, with their plentiful skill points and skill with sensors also tend to fill this role. On a small ship, this role will not normally be handled by a character as a primary role, but rather covered by several characters.

## MARINES

Boarding actions are common in ship combat. Many pirates prefer this type of combat, since blowing up a ship with your big guns often denies you the very cargo and hostages/slaves (also known as the crew) that you came for in the first place. Conversely, if you don't wish your cargo and crew to end up in the hold of an enemy vessel, you need some marines of your own to repel boarders.

**Who can do it:** Marines and Mercenaries are ideal for this role. Smugglers can fill in here in a pinch, especially in defensive actions, where their sneak attack abilities can give a nasty surprise to any interloper.

## FIGHTER PILOT

The least common of all the major roles, a ship with a Hangar Bay or Flight Deck would be well served to fill this crew role as soon as possible, allowing it to take advantage of the powerful ability to carry its own backup.

**Who can do it:** Anyone who can be a Helmsman would also make a good fighter pilot. However, Hotshots are the perfect choice for this role, even better than Pilots (though Pilots are almost as good).

## THE MAP

The combat *Blood and Space* strives to help you imagine take place in a vast, three-dimensional space. Where those combats are acted out, however, is a very finite, two-dimensional tabletop. This poses challenges, and presents opportunities to the GM. How you handle the map will determine how valuable some weapons are, how important speed is, and ultimately shape your game. In the sections on turning, we discussed the subtle differences between using a six-sided hex grid, and an eight-sided square grid, counting the corners as sides. Here we discuss how to handle the map boundary, and what different ways of dealing with this boundary will do to your combats.





## LOOPEd BOUNDARIES

On this kind of map, when a ship exits one side of the map, it reappears on the opposite side of the map at the same place. So, if a ship 11 hexes up the left side of the map goes off the edge, it reappears 11 hexes up on the right side, facing the same direction.

A Looped map represents an infinite space, allowing a ship to go the entire battle in the same direction without turning a single time. It makes speed a little more valuable, and maneuverability a little less valuable.

The problem with this kind of map is, that the player leaving the map edge has just “teleported” in behind his opponent. If the GM uses Looped Boundaries, he must make sure that players do not use the map to sneak around behind an opponent. They haven’t. They have moved further away. Likewise, the GM shouldn’t let a ship simply turn around, and head off the looping ship. To catch it, the pursuing ship needs to leave the map in the same direction as the ship it’s pursuing.

This requires a few extra things for the GM to keep track of, and may make running battles with many participants confusing.

## FIXED BOUNDARIES

In this kind of map, a ship that leaves the map by any map edge has disengaged the fight, ending it in a draw. A Fixed Map represents the abilities of FTL ships to warp

out of combat, or enter hyperspace for a quick escape.

On a Fixed Map, maneuverability is a little more valuable, and speed a little less. Weapons with a high range are more valuable, as depending on the size of the map, you might end up being able to hit your opponent anywhere on the table top.

The problem with Fixed Maps is that they aren’t as realistic as Looped Maps. A ship can almost always escape a combat that goes badly, even if it is the slower vessel. To counter this problem, the GM can either disallow retreat by the slower vessel, unless the ship with the faster engine declines to give chase. If the faster ship *does* give chase, the GM can either turn the slower ship up the map edge it is currently on, or Loop the map.

Alternately, the GM can require a piloting check, skill vs. skill, with the faster ship adding the difference between the two ship’s Acceleration to its piloting check. If the fleeing ship wins, it may leave the map. If the faster ship wins, then the ship either can’t leave the map, or the map loops, depending on which option the GM is using.

The GM may, for certain encounters, declare that only *one* map edge may be used to flee the battle, stating that enemy forces lie at all other map edges, while home waits for the characters off the far edge of the map. This option makes

for an interesting cat and mouse game for the ship that wants only to run, while his opponent tries to cut him off at every turn.

If the GM is running a Space Opera game and wants Hyperspace to be a way to retreat from battle, then leaving the map edge symbolizes that a fleeing ship has built up enough speed to depart the battle. If a ship wishes to pursue, it must make a Navigation check, DC 5 + the Acceleration of the fleeing craft, to successfully determine its destination (this check is harder for a fast ship because a very fast ship has a much greater range of destinations open to it).

## STARTING COMBAT

*Blood and Space* might seem like it presents a lot of new rules for combat. In fact, *Blood and Space* combat is remarkably similar to the combats we are all used to and enjoy in other d20 genres. The d20 combat system is remarkably flexible, and so adaptations of existing rules are used more than tons of new rules. Combat between two starships begins much the same as combat between two characters on the ground. In a normal fantasy encounter the first thing that happens is spot and listen checks to determine if the two parties are aware of one another. If one is aware and the other is not, then an



ambush might be in order. If both parties see each other, then they determine whether they regard one another as hostile (possibly by parleying or talking first), and if they do, combat begins with an initiative roll. *Blood and Space* follows this same pattern, only Sensor Operations checks take the place of Spot and Listen checks, Communication Operations takes the place of any parley attempt, and Crew and Ship size modify the initiative check, rather than dexterity.

## DETECTION

All ships in *Blood and Space* are outfitted with advanced radar and visual sighting equipment at no charge. The reason for this is the same reason that operating that equipment can be so tricky: space is crowded. I know, this sounds like an oxymoron. The very word itself, space, denotes emptiness. But in fact, space is littered with billions of objects, many of them no larger than a baseball. These objects are dangerous to ships traveling at the extremely high speeds needed for interstellar travel, and as such must be tracked and monitored, and avoided if at all possible.

At 32 Hexes (Sensor Range), or 160,000 miles, the first check is made to determine if the characters notice that the object approaching them, which would have been visible on radar for hours or even days, is in fact moving under its own power and is not a natural object, like an asteroid or comet. This check is modified by the Size of the craft, making large objects easier to detect, and small objects harder to detect, and by terrain. If the starship is traveling through an asteroid field or the ring of a gas giant, the determination of what is moving under its own power and what is moving in orbit around a larger object becomes harder to make.

If this check is failed by one craft, the other craft may move away before it is noticed, or attempt to close and surprise its opponent. In sufficiently crowded conditions, the piloting skill may use skill vs. skill to oppose the Sensor Operations check like the Hide skill. Sensor operation checks are made for each vessel at each range category, until either one ship attacks the other, or until both ships succeed at the check and notice one another.

## INITIATIVE

Once the two craft have noticed one another, and have decided to engage in combat, an initiative check is rolled. Like combat between two characters, a ship is flat-footed until the start of its first action. An initiative check is modified by the Helm Crew Modifier of each ship, as well as by each ship's Turn Modifier.

## ACTIVE DEFENSE

If two Starships are aware of one another, they may both engage in evasive maneuvers to make their ships harder to hit. A starship's Defense is 10 plus the Piloting skill of its pilot, plus any cover modifiers the ship currently enjoys

from terrain. Engaging in Active Defense is a move-equivalent action on the part of the Helmsman.

**Active Defense** = 10 + Piloting Skill + Misc. Modifiers

## PASSIVE DEFENSE

Just as characters are not always able to defend themselves, Starships are often surprised, or flanked by two separate opponents. In these cases, the ship's Defense is 10, plus any cover modifiers. Some possible reasons a starship might be reduced to only passive defense: a non-aerodynamic craft fighting in atmosphere, a surprise attack, a starship flanked by two or more starships, or a starship that is grappled by Magnetic Harpoons or Tractor Beams. Extremely large vessels might take more than two opponents to render a ship Flanked, as follows: Stations require 6 attackers to be flanked, Dreadnoughts 5, Capital 4, Huge 3, Large and below 2. If the attacking ships are Fighters, it takes double that amount to restrict a target's movement (12 fighters for a Station, and so on).

## RANGE AND DISTANCE

Space combat takes place at vast distances. There is no wind to affect projectiles, and no resistance to slow them down and lessen impact at range. Also, with the advent of large-scale energy weapons, attacks streak across the void at the speed of light. A Hex in *Blood and Space*'s starship tactical scale is 5,000 miles. Weapons are broken down into range categories, which determine the maximum and minimum range at which they may be used.

### No Range Modifiers?

*Blood and Space* uses most of the combat options players are used to having available to them with their regular characters. One major departure from the regular combat system, however, is the elimination of range modifiers. Weapons in the game have a *static range*, and may not fire a single hex beyond that. The main reason is the vast distances involved. As noted above, a Hex is 5,000 miles. A secondary reason is the tactical element it brings to the game.

## RANGE CATEGORIES

*Blood and Space* divides weapons ranges into Seven Range Categories: Ramming, Boarding, Short, Medium, Long, Extreme, and Sensor. Each of these ranges is discussed below.

### Ramming (0 Hexes)

When a ship enters the same hex as its opponent, it may declare its intention to Ram. A Ramming Attack is modified by  $\frac{1}{2}$  the Piloting skill of the Ramming ship's Helmsman, not his BAB. So a Helmsman with Piloting +8, and a +10 BAB would be +4 to hit with a Ramming attack.

Since space is three dimensional, and the size of a Hex large enough to accommodate several ships, Ramming never occurs accidentally. The amount of damage inflicted by a Ram attack depends on the size and speed of the ramming craft. Dreadnoughts inflict 4d6 Hull Points per Acceleration, Capital Ships 3d6, Huge Ships 2d6, Large 1d10, Medium 1d8, Small 1d6, Tiny 1d4, and Diminutive 1d3. Both ships take the same amount of damage.

#### Boarding (0 Hexes)

If two craft are in the same Hex and neither has announced the intention to Ram, they are considered to be at Boarding Range. At this Range, only Point Defense and Boarding weapons may be used. Boarding is still extremely difficult unless one ship has immobilized the other, either through destroying its engines, or the successful use of Magnetic Harpoons or Tractor Beams (see the Boarding skill for more information).

#### Short Range (1-2 Hexes)

At this range, Large Weapons suffer a -4 to hit, Small Weapons a -2 to hit. When Fighters are fighting a large craft, this Range and in is their preferred range, as they can then stand a fair chance of survival against their larger opponents.

#### Medium Range (3-4 Hexes)

Primarily Defensive weapons such as the Rail Guns most often seen on Merchant vessels use this range.

#### Long Range (5-8 Hexes)

Warships try to maintain at least this much distance from their targets, since their big guns can hit from here, and they are out of reach of most “pesky” smaller weapons.

#### Extreme Range (9-16 Hexes)

Large Capital Ships prefer this range, and a craft with a single weapon capable of hitting at this range often has a great advantage over any opponent it faces.

#### Sensor Range (17-32 Hexes)

Although weapons cannot be used at this range, it is here when starships are able to detect one another. A ship able to get further than 32 Hexes away from its opponent is often able to simply change course, accelerate, and break off the battle.

## MOVEMENT

Each starship has an acceleration based on its engine type. During a given round, a starship can increase or decrease its movement by its acceleration. For example, a Starship A with Acrux engine (+7 acceleration) that is not currently moving can move 7 hexes in the straight line. On the following round, Starship A could accelerate by 7 hex increasing its movement up to 14 hexes. Conversely, it could also decrease its movement by up to 7 hexes.

Moving faster than your base acceleration makes attacking other ships and piloting maneuvers more difficult. For each factor a ship is moving above its base acceleration (rounded up), it suffers a -1 penalty to piloting check and attack rolls. In addition to the piloting penalties, turning a starship at higher movements is more costly. For each factor the ship is moving beyond its base acceleration, the turning cost is also factored. See Turning below.

**GM Note:** If the GM prefers to use *Fixed Borders*, where any ship leaving the map is deemed to have broken off the battle and fled, it is suggest that a restriction be place on acceleration. Due to the combination of speed and loss of maneuverability, ships can accidentally go off the map edge. Depending on the size of the map, the GM may want to restrict acceleration to x2 or x3. On small maps, the GM may even want to restrict acceleration to x1.

## TURNING

Turning a Starship is a move-equivalent action for the Helmsman of that starship. Note that Active Defense is also a Move-Equivalent action, so a large craft will need at least 2 crewmembers to fight at full effectiveness. Smaller ships, such as fighters, may use the *Dogfighting* feat to ease this restriction.

Starships can also use their movement to turn in combat, changing their facing. Since large weapons have fixed facings, turning at the proper time is crucial to being able to use weapons to best effect. A ship can turn one facing in a round for one movement. Thus a ship that can move 8 hexes could turn one hex facing and move 7 hexes forward. A ships' first turn never cost more than 1 movement.

If a ship wishes to turn more than one facing within a single round, it must use more engine power, and thus more movement to effect that turn. Each additional facing a ship turns in a round costs the ship's *Turn Modifier* plus number of the turn it is completing. So a Large Vessel

**TABLE 7-1: STARSHIP MOVEMENT**

Factor	Acc +7	Pilot/Attack Penalty	Turning Modifier
X1	0-7	0	x1
X2	8-14	-1	x2
X3	15-21	-2	x3
X4	22-28	-3	x4

(turn modifier +1), with acceleration +8, that wished to turn two hex facings within the same round, would pay 1 movement for the first facing change, 3 for the second (2 plus the ship's turn modifier of +1), costing it half of its 8 movement. The ship could either move four hexes straight ahead, or turn one last time, which would cost 4 points of movement (3 for the 3<sup>rd</sup> turn, +1 for the ship's turn modifier).

Turning costs a minimum of one movement, even if the ship's turn modifier is less than 1. However, a negative turn modifier can be useful when combating terrain effects.

## STUNTS

The following are maneuvers that require piloting checks to perform successfully. Each of these maneuvers carries a -4 penalty to the listed Pilot skill check DC, unless the character has the Feat of the same name.

### BARREL ROLL (DC 10)

#### *Space Opera*

For every 5 points by which the character's piloting check exceeds the DC, the character may add +1 to the Defense of his starship. However, for each bonus to Defense the character gains from a barrel roll, the character takes a -1 to hit on his attacks. A pilot in a "hard" sci-fi game should avoid this like the plague, except as a last resort, as once he starts spinning, it will be very difficult for him to stop. A pilot in a hard sci-fi who wants to stop rolling once he has engaged this maneuver must make a piloting check of the same DC as what he originally rolled to correct his course.

### BOUNCE (DC 15)

This maneuver grants the character a +2 Circumstance Bonus to his Ship's Defense. It also allows the character to reroll a Trailing Contest, giving him another chance to shake his pursuer. In Tactical Space combat, this maneuver also allows a character a free two-facing turn.

### BRINKSMANSHIP (DC VARIES)

#### *Space Opera*

The pilot begins this maneuver by flying his craft close to a dangerous obstacle, and making a piloting check. If the pursuing craft refuses to follow the pilot into danger, the pilot may automatically increase the distance between himself and his pursuer by a number of hexes equal to his Pilot skill ranks. If the pursuing craft chooses to stay with his opponent, he must make a piloting check, the DC of which is equal to the piloting check of the craft he is pursuing. If the pursuing pilot fails this check by 1-5, then he falls back 1 Hex for each point by which he failed the roll. If the pursuing craft fails this check by more than 5, his craft suffers 1d6 pts of damage for each

## HEXES OR SQUARES?

*Blood and Space* allows you to play your space combats one of two ways, using a square-grid map or a hex-grid map. If you are using a square-grid map, each corner counts as a "side" for facing and turning purposes. Thus, eight turns will turn the ship 360 degrees. If you are using a hex-grid map, each side is a side, and six turns then turns you 360 degrees.

While this does make turning slightly cheaper on a hex field, it doesn't have a great effect on combat (most ships can turn 360 degrees in 4 rounds using the eight sided squares, as opposed to 3 rounds with the six sided hexes. If this disparity really bothers you, simply ignore the one acceleration turn in these rules, making the first turn cost 2+turn modifier instead.

point by which he failed the check, minus five. So, if a pilot engages in Brinksmanship, and rolls a 15, plus his 6 piloting ranks, any pursuing craft must succeed in a piloting check with a DC of 21 to stay with his target. If the pursuing craft rolls a 15-20, then he is forced to fall back 1 Hex for each point by which he failed the roll. If the pursuing craft rolls a 14, his craft would take 1d6 pts of damage. A 13 would result in 2d6 pts of damage, and so on.

### HOT SHOES (DC 20)

The Pilot dips his craft into a Body's Atmosphere, and then employs his Hot Shoes, slowing his craft tremendously (causing his Pursuer to shoot past him). If successful, the Pilot gets to immediately enter into a Trailing Contest against his opponent who is at -4 to his Piloting Skill for the opposed check.

### IMMELMAN (DC 25)

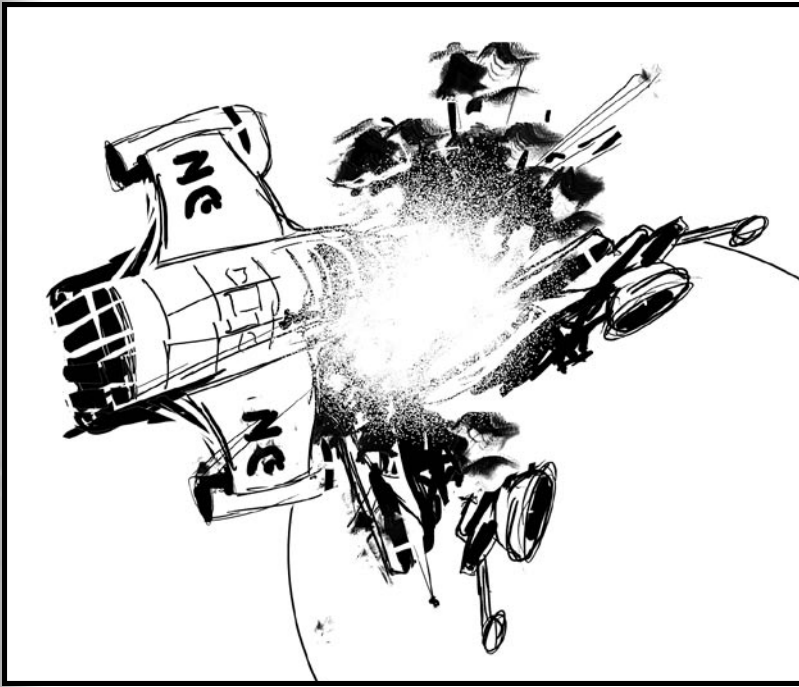
#### *Space Opera*

This dangerous loop-to-loop maneuver allows a trailed pilot to get the drop on his opponent, turning the tables on him. This maneuver violates the laws of physics, as we know them, allowing a spacecraft to overcome its momentum, and is only appropriate for space opera genre games. "Hard" Sci-Fi games should stay away from this maneuver. If the pilot succeeds at this maneuver, he is now trailing his opponent. If he fails, not only is the craft behind him still trailing him, but also the pursuing craft gets an attack of opportunity against the character's ship as he attempts to right his craft.

### SLINGSHOT (DC VARIES)

This maneuver involves moving closer to a gravity well (usually a planet or large asteroid) in order to gain speed. While any character can fly toward a gravity well to gain a boost in speed, characters with this maneuver suffer no chance of getting trapped in the gravity well. The





DC of this maneuver is equal to 10 +the Strength of the gravity well. If this skill is successful, the pilot gains +1 to his Acceleration for each two points by which his skill check exceeds the DC. The maximum bonus that can be gained in this way is equal to  $\frac{1}{2}$  the Strength of gravity well. If this skill check is failed, the ship actually loses Acceleration equal to  $\frac{1}{2}$  the gravity well's strength for 1-3 rounds as the pilot fights against the object's gravity, correcting his course.

### TRAILING (DC VARIES)

This maneuver is the coup de grace of any dogfight. If one character manages to get into a Trailing position, directly behind her opponent, she's going to win. This maneuver is really a piloting contest. The defending pilot (the one in the front position) makes a piloting check. This is the DC of the Trailing maneuver, which must be met for the attacking pilot to be considered Trailing her opponent.

The pilot of the faster craft gets to add a bonus to her piloting skill equal to the difference between the Acceleration of her craft and that of her opponent. If successful, the attacker immediately gains an Attack of Opportunity, and the defender is considered Flat-Footed (A "Flat-Footed" Pilot cannot actively defend, and thus does not get to add his piloting skill to his Ship's Defense). As long as the attacker successfully trails her opponent, the defender is Flat-Footed.

### YAW AND LIGHTEM (DC VARIES)

Yaw and Lightem is a definite "hotshot" maneuver and a big reason why so few old Pilots exist. The character sends his craft into a controlled 360-degree spin, allowing

him to catch a pursuer in the sights of his forward weapons. The Pilot then rides the turn out, and resumes his original course, leaving the smoking husk of his opponent for the scavenger trawlers. The Character must make a Pilot check to execute this maneuver. His opponent then must make a Spot check. If the Spot check is less than the attacker's Pilot check, the attacker gets to attack with his Forward Weapons Arc, and the defender is Flat-Footed (Unable to add his Pilot skill to the Defense of his craft). If the Defender's Spot check is higher he sees the maneuver coming, is allowed his full Defense against the attack, and gains an attack of opportunity against the attacker, who is considered flat-footed until the beginning of his next action. In other words, if this maneuver is successful, the defender will die. If it isn't, the attacker is probably the one left for the scavenger trawlers.

## ATTACKING

Once you have decided its time to fight, its time to make an attack roll. Again, *Blood and Space* doesn't reinvent the wheel, just takes the d20 combat system and applies it to the new genre. An attack roll is d20 plus the attackers dexterity modifier plus any additional miscellaneous modifiers for terrain, feats, etc...

**Attack** = d20 + Dexterity Modifier + Misc Modifiers

### FACING AND FIRING ARCS

Weapons facings in *Blood and Space* are by hex facing. This is another case where, depending on what type of map you use, square or hex-grid, the game becomes slightly different. Large weapons are fixed to a single hex facing. So, when a Large Weapon is purchased and installed on the ship, you must decide if it faces forward, left, right, rear, and so on. Changing a Large weapon's facing requires the weapon to be taken off the ship and reinstalled. Small weapons can be turreted, which allows them to fire 180 degrees. Pick the forward arc, the rear arc, the left arc, or the right arc.

### ATMOSPHERIC COMBAT

This might be the most rare type of Starship combat. Usually, both craft will prefer to avoid atmosphere. This type of combat most often occurs when one ship is Aerodynamic (or has Buffalo Wings), and the other ship does not. In this case, if there is a planet with atmosphere nearby, the aerodynamic craft will fly into the atmosphere, forcing its pursuer to either break off pursuit, or give it a

huge advantage in the battle to come. Non-Aerodynamic craft are at -5 to all piloting checks (including Active Defense). A Starship with Buffalo Wings is at -3 to all Piloting checks (including Active Defense). An Aerodynamic Starship suffers no penalties.

## SPACE OPERA COMBAT

Combat in Space Opera science fiction differs radically from that in other genres, because of the addition of two key elements: faster than light travel, and hyperspace. Ships fighting at faster than light are, for the most part, unable to use beam weapons at all, since their ships can actually outrun them. Thus, many combats at FTL speeds are decided by missiles capable of traveling faster than light themselves, loaded with the most destructive warhead in the galaxy: antimatter. Hyperspace is a wild, forbidding dimension that makes combat a dicey affair, one of maneuver and stealth, using roiling cloud of electromagnetic energy for cover.

## FASTER THAN LIGHT COMBAT

Ships with Accelerations of +21 and above are capable of traveling faster than the speed of light. This makes beam weapons much less of a threat, adding +2 to the Defense of the ship vs. beam weapons for each point of acceleration above +20. Thus, a ship with a Primitive Quicksilver Drive, Acceleration +23, would gain a +6 Defense bonus against beam weapons.

How is it possible to hit a ship capable of traveling faster than light with a slower weapon you ask? It requires a skillful weapons man, but it is possible by employing tactics such as firing ahead of the target and allowing him to fly right into the beam.

## HYPERSPACE COMBAT

Some starships that travel faster than light go into another dimension, called hyperspace. Combat in this dimension is something that inexperienced commanders dread. Hyperspace confuses sensors and weakens shields. Those versed in the differences between hyperspace and normal space, however, understand how to use this violent domain to their advantage.

Shields do not function in hyperspace, and missiles are incapable of locking on. There is simply too much electromagnetic interference. Furthermore, all beam weapons have a 20% chance to miss due to "concealment". Communications and sensors also suffer from this electromagnetic "soup", with all sensor detection DCs being raised by 10, and all communication attempts being forced to overcome a Jamming DC of 25.

However, skilled pilots are able to use the electromagnetic interference for cover, overcoming the lack of shields. A piloting check of 15 raises the concealment to 30%; a piloting check of 20 raises it to 40%, and so on. Furthermore, commanders familiar with

the havoc hyperspace wreaks on sensors will be sure to carry plenty of mines.

## GENERAL COMBAT RULES

### ANTI-GRAPPLE TACTICS

Once a ship has been grappled by Magnetic Harpoons or Tractor Beams, it will want to get free as soon as possible, since it is not only vulnerable to Boarding actions, but is unable to actively defend or move away from its target. Breaking free from a grapple requires a powerful engine and a skilled pilot to "wrench" the ship at just the right moment to break free. Wrenching is a piloting check, with the Acceleration of the grappled craft granting a circumstance bonus equal to the craft's acceleration. The DC of this check is 5 per grapple successfully applied for Magnetic Harpoons, or 5 per Power for Tractor Beams.

### USING POINT DEFENSE AGAINST HARPOONS

Another option for a ship with point defense weapons installed is to use these to break the cables. Each point defense weapon the grappled ship devotes to destroying grapples that hits a Defense of 18 will break that grapple. This tactic may not be employed against Tractor Beams.

### MINES

Mines are a great way to deter pursuit. Buying a mine from the Starship Weapons list actually means you've bought a dozen mines, which are dropped out behind the ship. Each mine dropped creates a Field 1-4 Hexes across by 1-4 Hexes deep. The first consideration is whether the pursuing craft detects the mines. This entails a Sensor Operations check (see the skill description for the DCS). If the mines are detected, the pursuing vessel has two choices: go around or go through. If the pursuing vessel goes around the mines, (which is the idea), then his opponent will be able to gain distance, and possibly escape. If the vessel goes through, 1d6 mines will attack it. However, the vessel may actively defend, as the pilot attempts to dodge the mines. If the mines are detected they mostly serve as a deterrent to continued pursuit. However, the real danger of mines comes if they are not detected. In this case, the pursuing vessel will be attacked by 1-12 mines, may not actively defend, and the mines add the Acceleration of the pursuing craft to their BAB (which often means a lot of them will hit).

If Mines are detected, they can be destroyed by weapons fire, but this process is time consuming, and again usually gives the fleeing ship a chance to escape. A Mine has a Defense of 25 against Large Weapons, 20 against Small Weapons, and 15 against Point Defense Weapons.

## MINES AND SEEKING WEAPONS

If a missile is pursuing a ship, it might use mines to destroy that missile before it gets close. Since the missile gets no chance to detect the missiles (“smart” missiles aren’t really *that* smart), this is an effective (though expensive) way to get rid of a bunch of pesky missiles chasing you.

### SEEKING WEAPONS

Seeking weapons such as missiles work much differently from direct fire weapons, such as a Laser or a Rail Gun. Seeking weapons have their own BAB, as opposed to direct fire weapons that use the BAB of the operator. Also, a Seeking weapon may take several rounds to reach its target. Seeking starts at the same range as the firing ship, and then “chases” the target.

Seeking Weapons move like ships, spending their acceleration to move and turn. All missiles have a Turn Modifier as a Diminutive Ship (-3) and cannot increase their movement beyond x1 acceleration.

### BOMBING GROUND TARGETS

**Dive Bombing:** Dive Bombing is a primitive tactic employed by ships without Bombsights. Essentially, the pilot lines up his craft to the target, and then goes into a steep dive (emulating the course the bomb itself would take), carrying the bomb almost all the way to its target. At the last minute, as low over the target as possible, the pilot pulls up sharply and drops his bomb. Only Aerodynamic Craft may Dive Bomb.

Executing a bombing run of this sort is a full round action, and the craft performing it is flat-footed to both ground and air fire for the entire round. The base Piloting DC to execute this maneuver is 20. How well the dive is executed will determine the bomb’s BAB, as shown on the table below:

Roll	Result
10 or less	Craft Crashes while performing the dive
11-15	BAB of Bomb -6
16-20	BAB of Bomb -4
21-25	BAB of Bomb -2
26-30	BAB of Bomb +0

**Bombing Runs:** A Ship with a bombsight may perform a Bombing Run. A Bombing Run is nothing more complicated than flying high and steady over a target, and then dropping the bomb at the time when wind and velocity will carry it into the target. Although this is the most accurate way to deliver a bomb on target, it carries great risk for the bomber. A Bombing Run takes one minute (10 rounds) to execute, and the bomber is flat-footed that entire time. If a ship uses Active Defense at any point during a bombing run, it subtracts that same

amount from the bombing attack roll. For this reason escort ships (and the defense they provide) are essential to successful bombing.

### GROUND BATTERIES

Ground Installations may attack starships in orbit if properly armed. This is effectively Orbital Bombardment in reverse, and all the rules detailed under Orbital Bombardment apply (Large Weapons only, -8 to hit, and so forth).

However, as soon as a craft enters the atmosphere, it becomes much more vulnerable to ground based attack. Ground Batteries fire at no penalty to hit against targets in atmosphere. However, since any direct fire weapon must be able to detect its target, non-missile weapons are limited to a range of six hexes against targets on the ground. Large weapons are -4 to hit targets on the ground, Small weapons -2, Point Defense Weapons attack ground targets without penalty.

Combat between Ground Batteries and forces on the ground are conducted in much the same manner as normal crew combat. Armored, Heavy, and Orbital Marines, due to their advanced weaponry conduct combat normally when engaged by Ground Batteries. If the Ground Unit is normal, it may not inflict damage on attacking Ground Batteries even if it wins the round.

### ORBITAL BOMBARDMENT

For the ship without bombs or bomb bays, there is another viable alternative to attacking a target on the surface of a planet: Bombardment. Bombardment is nothing more than firing away with a ship’s big guns at a target on the ground. However, ship to ship weapons are designed to work in the vacuum of space, so this option does not come without serious drawbacks, drawbacks that have kept the place of the bomber alive and well in combat of the future.

**Which weapons can be used:** Only Large Direct Fire Weapons and Missiles (of all sorts) may be used for orbital bombardment. Small and Point Defense weapons tend to either dissipate, or miss wildly when used for Bombardment.

**Hitting the Target:** Although Large weapons can effectively Bombard, these weapons lose much of their accuracy firing through atmosphere. The BAB of any weapon used to Bombard is -8.

### POINT DEFENSE

The purpose of so-called “point defense” weapons is mainly defensive, especially to ward off missile fire. While some weapons are designed specifically for point defense, any weapon can be used for this purpose in a pinch. Each Point Defense weapon that has not attacked in a round grants a starship +2 Defense against missiles. Each regular weapon devoted to Point Defense grants a ship +1 Defense against missile fire.



TABLE 7-2: DAMAGING SYSTEMS

Roll	Area
1	<b>Bridge Crew:</b> This hit is the most likely to affect Player Characters. A hit here may inflict damage to Helm Crew, Engineering Crew (the Engineering Department handles ship's communications), or Science Crew.
2	<b>Bridge Systems:</b> The Bridge of a starship is the hub of its communication and sensor systems, since the command crew of a ship needs access to all the information on the state of a battle to make crucial decisions. Each Hit taken by Bridge Systems raises the DC of any Sensor or Communication Operations skill check.
3	<b>Hull Major:</b> As above, only worse, 1 Hull Point will be suffered each round until a Hit is repaired to the Hull.
4	<b>Hull Minor:</b> A section of the hull is compromised, and pressure from inside the vessel is cracking the hull, inflicting ever increasing damage along "fault lines" and weaknesses created in the hull by this attack. This critical will inflict 1 Hull Point each minute until Damage Control repairs at least one Hit to the hull.
5	<b>Weapons:</b> One of the ship's weapons (chosen randomly) is damaged by the attack. For each Hit inflicted by the attack, the weapon suffers a -1 to hit and damage until repaired.
6	<b>Weapons Crew:</b> The Weapons crew suffers damage.
7	<b>Marine Hit:</b> One of the ship's Marine or Security units takes damage. If a ship has more than one marine unit, then this damage is divided equally among them, but each 10 points of damage results in a hit. In other words, 20 points of damage divided by 3 Marine Units does not equal 7 points each and no hits, it results in two units taking a Hit and a third suffering no damage.
8 - 9	<b>Miscellaneous System:</b> One piece of miscellaneous equipment suffers damage, and does not function until repaired. If the ship has no miscellaneous systems, treat this as a cargo hit.
10 - 12	<b>Cargo:</b> For each 10 points of damage inflicted, ½ ton of cargo is lost. For a ship attempting to make money off its voyages, this could be the worst critical hit of all.
13	<b>Flight Deck:</b> The ship's Fighter launching area takes damage. For each hit inflicted by the attack, fighters take one round longer to launch.
14 - 16	<b>Starship Facility:</b> One Facility (Lab, Gymnasium, HoloArcade, etc) other than a Marine Bay/Flight Deck is damaged. If the ship has no facilities, treat this as a cargo hit. Medical facilities are always placed in the most heavily shielded areas of a ship and are the last facility to be affected. Each Hit to a facility removes a bonus that facility normally provides. So a Lab (+2 science skills) that suffered a hit would grant a +1 until repaired.
17	<b>Shield Generator:</b> For each Hit inflicted by the attack the ship's maximum Shields is reduced by one. If the ship has no shields, treat this critical as a Hull, Minor.
18	<b>Maneuvering Thrusters:</b> For each Hit inflicted by this attack, the ship suffers a -1 to all piloting checks.
19	<b>Engine:</b> For each Hit inflicted by the attack, the ship suffers -1 to its Acceleration.
20	<b>Engineering Crew:</b> The Engineering Crew takes a hit.

AMD (Anti-Missile Defense systems) are a special form of point defense. The AMD is a missile launcher, computer controlled, that fires at missiles at extremely close range as a last resort. Any ship with an AMD installed (which takes up one of the craft's Ports) will only take half damage from any missile that hits.

## STRESSING A SYSTEM

The true test of any device is when you ask it to do something it wasn't designed for. Starship systems can be pushed beyond their limits, at a cost. Any system on a Starship can be pushed to +2 above spec once per day with no danger. For engines, this results in a 1-6 round bonus to the craft's Acceleration modifier of +2. For weapons, the bonus can either be applied to hit or to damage.

If the system is stressed more than once per day, there is a cumulative 1 in 20 chance of that item developing a Flaw (roll on the JMF table, but treat rolls of 96-00 as 95). In other words, if an item is stressed twice in the same day, there is a 1 in 20 chance of the item developing a Flaw. If it is stressed again that same day, there is a 2 in 20 chance of it developing a Flaw, and so on. The Engineer class may safely stress systems additional times with no risk of permanent damage.

## DAMAGING SYSTEMS (OPTIONAL)

As an alternate rule, for those GMs who want more flash and color to their space combat scenes, each time a ship takes damage, one of its systems is impaired by that damage. If the GM chooses to use this alternate system for damage, each critical attack that penetrates a ship's defenses and inflicts 10 or more points of damage causes a "hit" on a system, determined by rolling on the table below. GMs who desire a more dangerous space combat system could apply these results from each hit that penetrates the ship's defenses and inflicts 10 or more points of damage.

A system that has taken a hit loses a certain amount of performance, as detailed in the Table 7-2. A Crew unit that suffers a hit loses one level of quality. See Crew Damage in Chapter 6 for effects of damaging crews.

Any Player Characters in the area will be affected by any crew hits, suffering damage equal to the amount that penetrated the ship's defenses, half if they make a Reflex Save (DC 15). Characters who suffer weapons damage from a Critical Hit do not suffer double or triple damage (as noted in the Ship to Ship weapons descriptions), since the ship itself would take the brunt of the damage.

Any hit taken on a facility a ship does not have should be treated as a Cargo Hit.

# STARSHIP COMBAT EXAMPLE

Now, you've seen the ships, you know how to build them, how to fly them, and how to fight with them, so let's put it all together. A ringside seat is always the best place to watch a fight, and that's where you are.

## THE SETUP

This encounter pits the *USS Lantern*, a newly commissioned Shepherd-Class Escort of the United Sol System, on anti-piracy and smuggling patrol in the asteroid belt, against the *Mauler*, a Raider-Class Pirate ship. The *Mauler's* Captain doesn't want anyone interrupting the steady flow of goods and credits into his bosses' coffers, so he decides to lay a trap for the *Lantern*. Knowing his craft is faster and more maneuverable, the *Mauler* picks an open stretch of the Belt and sends a false distress call. As the *Lantern* moves into sensor range, the *Mauler* springs the trap, confident of victory.

## WHAT YOU NEED TO KNOW

Jot down the relevant stats of the Raider and Shepherd class, or familiarize yourself with them enough to follow what's happening. The crews of both ships are considered to be average, so you don't need to worry about skipping ahead to that section. Although the Shepherd has an impressive four units of Marines, the Raider has no Marines at all, so if the Shepherd manages to latch onto the Raider with his Magnetic Harpoons, the combat will effectively be over.

As both ship's crews are relatively young, all relevant skill checks are +4. The BAB of the Weapons Crews on each ship is +2.

## THE BATTLE

The *Lantern* and the *Mauler* begin the combat at opposite edges of the map, about 22 hexes apart, well within Sensor Range (32 Hexes). Each ship needs a Sensor check DC of 15 to detect the other. The *Mauler's* Ops officer fails miserably, rolling a 3. Even though he was on watch for the *Lantern* to respond to the distress call, he mistakes the ship for a drifting meteor. The *Lantern*, however, makes no such mistake, and has spotted the *Mauler* (the Ops officer rolled a 15, +4).

Although slower than his opponent, one of the advantages the *Lantern* does have, and a potent one, is the Extreme Range of its weapons (16 Hexes). The *Mauler* will not get another chance to detect the *Lantern* until it reaches Extreme Range, so the *Lantern* will get a surprise attack. The *Lantern* moves forward 5 hexes, but is still just out weapons range (17 Hexes away). The *Mauler* does nothing, still waiting idly for its "prey" to arrive.

The *Lantern's* Captain would prefer to take the *Mauler*, hauling its pirate scum to the local magistrate for a trial,

## ACTIONS IN STARSHIP COMBAT: A SUMMARY

There are many actions that can be performed in Starship combat. For ease of reference, those actions are summarized below. A Personal action is one taken by a single character during the course of his turn. A crew action is one that is taken by a crew unit after being given the appropriate order.

Some Orders last one round, and some last until an appropriate counter order is given. For example, once the Fire at Will command has been given, Weapons Crew will fire the ships weapons every round, as long as an enemy craft is in range, until the Cease Fire order is given.

Action	Time	Type
Active Defense	Move-Equivalent	Personal
Turn Ship	Move-Equivalent	Personal
Attack	Attack	Personal
Crew Order	Move-Equivalent	Personal
Fire at Will	Attack/Until Cancelled	Weapons Crew
Cease Fire	Full Round	Weapons Crew
Steady as She Goes	Full Round/Until Cancelled	Helm Crew
Evasive Action	Full Round/Until Cancelled	Helm Crew
Hard About	Full Round	Helm Crew
Silent Running	Full Round/Until Cancelled	Helm Crew
Long Range Scan	Full Round/Until Cancelled	Science Crew
Detailed Scan	Full Round	Science Crew
Quarantine Protocol	1 minute	Medical Crew
Prepare for Casualties	1 minute (pre-combat only)	Medical Crew
Jam all Transmissions	Full Round/Until Cancelled	Engineering Crew
Divert Power	Full Round	Engineering Crew
Emergency Power to Weapons	Full Round	Engineering Crew
Emergency Power to Shields	Full Round	Engineering Crew
Emergency Power to Thrusters	Full Round	Engineering Crew
Board	Full Round	Marine Crew
Neutralize Resistance	Full Round	Marine Crew
Seize Vessel	Full Round/Until Cancelled	Marine Crew
Hit and Run	Full Round	Marine Crew
Repel Boarders	Full Round/Until Cancelled	Marine Crew
Damage Control	Full Round	Damage Control
Dogfight	Full Round/Until Cancelled	Flight
Picket	Full Round/Until Cancelled	Flight
Patrol	Full Round/Until Cancelled	Flight
Escort	Full Round/Until Cancelled	Flight
Interdiction	Full Round/Until Cancelled	Flight
Strafe	Attack/Until Cancelled	Flight

so he barrels straight ahead another 5 hexes (his full speed with Acceleration +5), and lets loose with all three forward firing weapons on the flat-footed *Mauler*. With a BAB of +2, and his target surprised, the *Lantern* hits with all three attacks. The Helium Ion Plasma Cannon hits for 22 points of damage, and the two Proton Beams hit for 11, and 12 respectively. The first hit inflicts 2 HP of damage on the *Mauler* and reduces its armor from 20 to 19 DR. The remaining two hits do no damage, but each reduces the armor by one. So the *Mauler* now has 28 HP, and

Armor 17 DR against all attacks.

Round two begins with an Initiative roll, as both craft are now well aware of each other's existence. Powering up to full speed, the *Mauler* gains the benefit of its Speed Differential of +2 (its Acceleration is +7, while the *Lantern's* is only +5) to its initiative check, and rolls a 17, +2 for speed, for a 19. The *Lantern* rolls a 1, so the *Mauler* will have the initiative for the rest of the battle.

Although the *Lantern* is dangerously close, and the *Mauler* knows that a boarding action would finish him,



he elects to stand and fight rather than run, which means he needs to get closer still: all the *Mauler's* weapons have a range of 8. However, the *Mauler* has one enormous advantage on his side: speed. With Afterburners 2: 1, 13 Free Power, and no bothersome shields to worry about recharging, the *Mauler* orders full speed, and his afterburners raise his Acceleration to +13. This gives the *Mauler* a Speed Differential of +8.

The *Mauler* moves forward four hexes to bring its weapons into range, and unleashes a withering barrage with all four of its forward firing weapons, hitting the *Lantern*, whose Defense is 14, twice. The first hit, from the *Mauler's* Xenon Ion Plasma does 23 points, taking the *Lantern's* Shields down from 15 to zero, and its Armor down from five to four, and inflicting 3 HP of damage. The second hit, with one of the *Mauler's* Focused Microwaves also inflicts 23 points taking its armor down from four to three, and inflicting 4 HP of damage, leaving the *Escort* with 23. Note that the *Lantern* gains the benefit of his Shields for the rest of this round. At the end of the round, the *Lantern's* Shields will be Zero, plus any recharging benefit from Free Power.

The *Mauler* finishes his movement, spending 4 Acc to turn two Hex Facings (1 for the first turn, 3 for second- 2 for the second turn plus 1 for the *Mauler's* Turn Modifier), and then moves 5 Hexes away from the *Lantern*, leaving him 7 hexes away, with his right rear quarter facing the *Lantern*. Although only one of the *Mauler's* weapons (his rear firing Focused Microwave) can fire at this angle, he's not concerned with that. He has enough speed to get into attack range on the next round, and the *Lantern* is too slow to run. The *Mauler* needs only stay away from the *Lantern* to prevent boarding. If the combat goes against the *Lantern*, he can break off at any time with his speed.

However, the *Lantern* is far from finished, and moves four hexes straight ahead, and then turns with his last point of Acc, putting all of his weapons in range to hit except its Harpoons. The *Lantern* misses with its Helium Ion Plasma Cannon, but scores hits with both Proton beams. The first Proton beam inflicts 18, lowering the *Mauler's* armor from 17 to 16, and inflicting 1 HP of damage. The second Proton beam inflicts 15 points, which does no damage to the *Mauler*, but does reduce its Armor to 15. As the round ends, the *Lantern* adds his Free Power (11) to his Shields, giving him 11 DR from Shields for the next round.

Feeling the *Lantern* a little too close for comfort, the *Mauler* turns once, facing its right side toward the *Lantern*, allowing it to fire with all 4 of its focused microwaves, but not with its Xenon Ion, which can only fire forward. Attacking four times, the *Mauler* hits twice, once for 20 pts, inflicting 6, and once for 17, inflicting 3, leaving the *Lantern* with 14 HP. The *Mauler* then streaks 12 Hexes straight ahead; giving it some much needed breathing room.

Who will win? It's dicey. Probably the *Mauler*, but the *Lantern* can still pull back and use the long reach of its weapons to avoid damage from the *Lantern*.

## TERRAIN

Not all the dangers ships and their crews will face in space come from enemy vessels. Space itself is a hazardous place. As with any combat scene, the GM can make a combat much more exciting by placing the adventure in a hazardous area, forcing the characters to cope with the environment and their opponents. A fight in deep open space is as boring as a fight in a wide open plain, however, a fight where the starships involved must skirt the edges of a black hole is much more exciting.

## GRAVITY WELLS

Many of the terrain features below have Gravity Wells associated with them. Extremely large objects (such as Stars, Planets, Moons, Black Holes and so forth) will pull smaller objects (such as starships) toward them. Many of the terrain types listed in this chapter either *are* a form of gravity well or have a strong gravity well associated with them, so a discussion of gravity and its effects on combat generally is an appropriate place to begin. In game terms, gravity wells are rated in terms of their Strength.

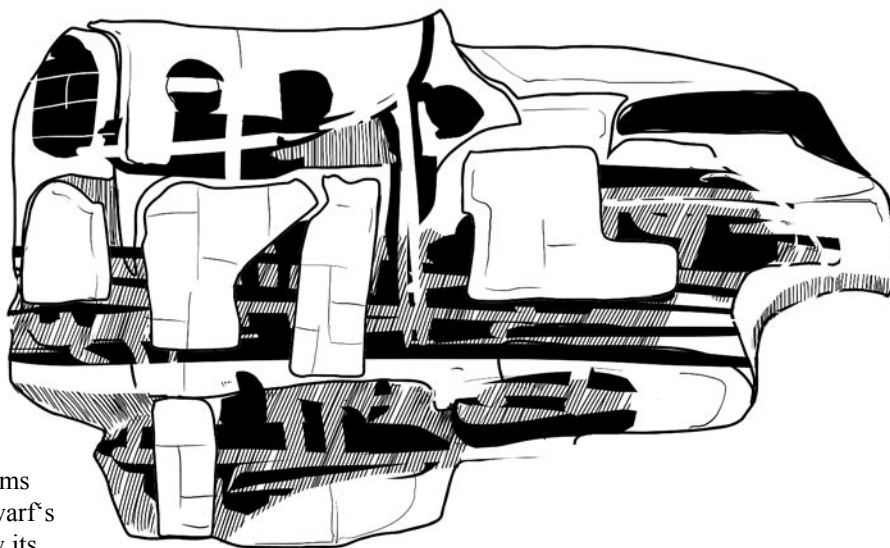
**Gravity Strength:** this is the "pull" of the object. When a ship moves toward the gravity well, he adds its strength to his ship's Acceleration. Since speed is vital in ship-to-ship combat, this can allow a gravity well to serve as an equalizer, allowing a slower ship, with a daring pilot, to gain crucial speed. However, this speed comes at a price. Once a ship begins to move in the direction of a gravity well, it will tend to move in that direction until it either successfully pulls away, or until it crashes into the gravity well. To pull away from an object requires a pilot check of 10 + the Strength of the gravity well. Any ship moving directly away from a gravity well subtracts its strength from the ship's Acceleration. This is why the slingshot maneuver is so important, allowing a ship to take advantage of a gravity well to gain speed on an elliptical trajectory that will never cause it to crash into the gravity well.

## ACCRETION DISK, SMALL

An accretion disk is a disk of matter: gas, dust, etc... that is falling toward a strong gravitational source. In the process, much like a skater pulling her arms close to her body, the material revolves around the central object faster as it gets closer, forming a continuous disk of friction-heated glowing matter extending out from the equator of the gravity source. Closely associated with all accretion disks are jets of matter shooting outward above the poles of the object. The material of the accretion disk will be thin and harmless at the edges, becoming dense, very hot, and highly ionized as you approach the gravity source. Jets are VERY hot streams of matter (from the disk) being driven by powerful electromagnetic fields to velocities measured in term of %c.

Small Accretion Disks, usually a number of AU's in

diameter, are associated with newly forming star systems, where matter is still coalescing into the central star(s) and planets, and also in old binary (or more) star systems in which one or more tiny dense stellar remnants are leeching matter from a giant star in the system. The simple common case is a binary star system in which a dense white dwarf core is leeching a stream of matter from a nearby red giant star's outer shell. The matter forms a hot glowing disk around the dwarf's equator and jets above and below its poles. The situation for the dwarf star is a



candidate for a surprise nova or supernova. All pairings are possible, with one giant star and any of the stellar remnant types. More complex systems are also possible, but always with a giant star source.

The jets from small accretion disks are narrow and powerful, extending a handful of lightyears. The density of the remnant object effects the strength. Jets formed by small black hole accretion disks can move at speeds as high as 90%*c* and would be highly destructive if a ship moved into one, without VERY special shielding.

**Game Effect:** At the center of the disk is a gravity well, with a Strength of 5. The matter comprising the disk itself could possibly damage any ship moving through it, requiring a piloting check of 15 + the speed of the ship. The pilot's ship suffers 1d6 damage for each point by which he fails this check. The Jet emanating from the center of these small disks is too small to be used for a speed boost, however, it will damage any ship passing through it, inflicting 10d6 points of damage on any ship that comes into contact with it. However, the fact that the jet *is* so dangerous makes it a perfect candidate for a daring pilot employing brinksmanship to lose a pursuer.

### ACCRETION DISK, MEDIUM

This would be a disk involving a large amount of coalescing matter from a giant nebula cloud spiraling onto a medium sized black hole. One might be found at the core of a small galaxy. It would be a few light years in diameter. Its powerful jets would extend for hundreds of lightyears.

**Game Effect:** Larger, and more powerful, these disks have a Strength of 7. The Jets from these disks are suitable, if less than ideal, for *surfing*, and are capable of boosting a ship's speed up to an Acceleration of 20. (In Hard sci-fi games Acceleration 20 is the maximum an engine can provide, so in this genre these jets are even more valuable as they are an inexpensive way for a craft to achieve such a high velocity, near the speed of light). Surfing on a jet from one of these disks is safe, but tricky,

and requires a piloting check of 20. Failure means the ship caught its *wave* at the wrong angle, and is going to be seriously off course, adding a penalty to the pilot's navigation check equal to the amount by which the skill check was missed. This could result in the trip taking longer, even though the ship is travelling faster, as the pilot makes course corrections along the way, taking a less efficient route.

### ACCRETION DISK, GIANT

Giant accretion disks are always associated with giant black holes, usually at the central bulge of a spiral galaxy. Many old galaxies like the Milky Way do not have an active disk at their core anymore, but younger or more turbulent systems can have them. The disks are dozens to hundreds of light years across, with jets extending for 10's of thousands of lightyears above and below the galactic poles. The jets are wider and often slower than those from smaller accretion disk systems, but lasting for millions of years and containing far more matter. A giant disk's jet could be surfed into deep intergalactic space.

**Game Effect:** The effect of such a vast gravity well can be felt hundreds, if not thousands of lightyears away. These phenomena often serve as hubs of trade, commerce, and war, much like rivers in the middle ages, as they provide easy, fast, effective transportation through their vast jets. Any craft equipped with a Solar Sail can use one of these to Accelerate to Speed 20, with no piloting check necessary.

### ASTEROID, FIELD

Asteroids are made mostly of minerals and metals, giving them the appearance of large boulders. They run the gamut from baseball size, to as large as a small moon. This terrain feature only covers asteroids too small to land on that are found in free floating fields, held relatively coherent by the gravity wells between planets.

**Game Effect:** When the GM determines that an asteroid field is present in an encounter, he first needs to



determine its *density*. To determine a field's density, roll a d20. To safely pass through any hex of the asteroid field, a ship must make a piloting check with a DC of the field density plus its speed. For example, a ship passing through an asteroid field with a density of 11, travelling at a speed of 10, would need to make a piloting check of 21 to pass through safely.

A ship passing through an asteroid field that fails this check, takes 1d6 damage for each point by which the piloting check was failed, with the maximum damage equalling density d6. Continuing the example from above, our intrepid pilot rolls a 1 on his trip through the field, failing by 20. However, since the density of the field is 11, 11d6 is the most damage he can suffer.

Asteroid fields provide cover, raising the Sensor Operations DC needed to detect a ship inside by an amount equal to the field's density. A skilled pilot can use an asteroid belt to deflect some of the damage from incoming attacks by making a piloting check of 30 – the field's density (so in this case a dense field is an advantage). If this check is made, all attacks that would hit the character's ship that round suffer a miss chance equal to the field's density. Continuing the example from above, a pilot wishing to use the asteroids for cover, would need to roll a pilot check of 19 (30 – the field's density of 11). If he succeeded at this check, all attacks that would hit would miss 11% of the time until the start of the character's next action.

## ASTEROID HUGE

These asteroids range in size from a small continent to the size of Earth's moon. Some maybe unstable lumps of rock, lightly held together, while others may be very solid.

Game effect: These asteroids can only occur in a field with a density of 11 or higher. If the GM wishes to determine the presence of one of these objects randomly, assume a 1 in 20 chance for an asteroid of this size for each point of density over 10. These objects are treated like Tiny Moons (see the description later in this chapter).

## BLACK HOLE

Medium sized black holes have an amount of matter comparable to several hundred to 100,000 suns. They have been found at the centers of large globular star clusters. The curvature of space near a black hole is such that nothing, not even light can escape the event horizon. The event horizon is not the edge of some object, but rather a dark sphere of no return in space. A ship getting close to the event horizon would be expending tremendous energy to not fall into it. Falling in will result in destruction in a matter of minutes and no *real* means of communication using *real* space-time with anything outside the horizon is possible. It is not possible to leave from within the event horizon via travel in *real* space-time - all your *real* futures became defined as inside the hole approaching the singularity, when you crossed the event horizon. There is no concept of a stable orbit within an

event horizon, because space-time is curved beyond the strength of all other natural forces. For a medium sized hole, the horizon will be anywhere from the size of the Earth to the size of the sun.

**Game Effect:** A black hole is a gravity well of the most powerful sort, with a strength ranging from 11-20. They can be used for speed boost and slingshots in the normal fashion. However, these gravity wells are so powerful, that all ships drift toward them a number of hexes each round equal to the black hole's strength –10. So a battle with a black hole in the center of the map with a strength of 12 would cause all ships to move 2 hexes toward the center of the map each round. Any ship coming into contact with a black hole is utterly destroyed (no save).

## COMET, ACTIVE

Comets are ice balls that are near a star. The star heats the ice ball, causing its insides to boil, shooting jets of water vapor in all directions. These jets become 2 tails, one prominent made of water and other material debris and one smaller one made of ionized gases. The material debris trail is slightly curved, following the orbit of the comet, and for the largest ones can stretch half way across the planets of a Star System and be 10's of miles thick. It is lit by the light of the star. The second trail is usually shorter and narrow. The charged particles of the 2<sup>nd</sup> tail point directly away from the star, driven that way by the star's charged particle wind. Minor physical damage would result by flying in or through a comet trail.

**Game Effect:** The comet itself occupies one hex, while the tail stretches out behind the comet 1-6 Hexes. Any ship coming into contact with the comet itself suffers damage as if it collided with a starship of Huge Size travelling at the comet's speed. A Comet is an unusual terrain feature in that it moves across the map under its own power, after all other ships on the map have taken their actions.

A Comet's speed is rated just like a ship, at +1- +10 Acceleration. Depending on where in its path the comet is encountered, it might turn during the course of its movement. A ship encountering a Comet can make a Navigation check (DC 15 + the comet's speed) to estimate its flight path as it moves through the map.

A ship moving at the same speed as the comet can use the tail for cover from sensors, though not attack, raising the DC of any sensor check to detect it by twice the comet's speed. A ship in a comet's tail suffers a number of points of damage each round equal to the comet's speed.

A ship moving at a different speed from the comet still gains some benefit from being in the tail, though not as much, gaining a Cover bonus equal to the Comet's Speed against sensors.



## COSMIC SUPER STRING

Postulated to be left over from the big bang, a Cosmic Super String is an object of near zero thickness, almost any length, and tremendous density and gravitation. Encountering one would be a first, and if at close range, utterly disastrous for the would be scientist as space is very highly curved at the string. Cosmic Super Strings might be more readily found in a young universe.

**Game Effect:** The warping of space around a Cosmic String would not be difficult to detect, requiring only a Sensor Operations check (DC 10). This warping of space would impose an increasing hazard as one got closer to the string. From 6 hexes away -2 to all piloting checks, 5 hexes away -4, and so on. Any ship inside the String's Warping space zone of six hexes must make a piloting check of DC 15 to maintain its current facing. If the ship fails this check, it turns in a random direction, 1-8 facings (8 facings would result in a complete 360 degree turn!). This warping of space might very well lead to a ship that is too close to a String colliding with it.

Detecting a Cosmic String itself would be difficult in the extreme, requiring a Sensor Operations check (DC 30). However, the warping of space around the string would make this check *easier*, subtracting an amount equal to the piloting penalty from the Sensor DC.

A Cosmic String can also be used for cover, as the warping of space around it also warps weapons fire. All ships within the String's warping zone gain a Cover bonus of 5% per piloting penalty. Most ships forgo this protection, however, as being so close to the String itself presents many more dangers than most opponents.

A Cosmic String is 1-8 Hexes long, and may be of an irregular shape. Its general shape could be determined by the warping of space. Any ship coming into contact with the String would be destroyed utterly (no save).

Fortune and Glory: However, any Scientist character would know that an actual, recorded, detection of a Cosmic String would elevate him to Einsteinian prominence in the scientific community. The character could, literally, live off of the grants he would receive to research his findings for the rest of his life. A Scientist PC might be the reason a ship tries to get close enough to the String to detect it, or the PCs might be hired by a Scientist to fly them in close.

## ELECTROMAGNETIC STORM

These charged particle storms can be attributed to at least two causes, Solar Flares being the common cause. A Solar Flare encountered at great distance will disrupt communications and sensors, and might damage some systems that are not sufficiently rad hardened. The other cause can be an interaction between two bodies, where one or more is volcanic and one or more is highly magnetic. Such a circumstance exists at Jupiter, where Io spews volcanic material into orbit around Jupiter. Jupiter's magnetic field, combined with the solar wind creates a magnetic storm that encircles Jupiter. Any

situation where powerful magnetic fields and a source of particles exists might cause storms of charged particles. If an EM Storm is rolled and no cause is close by, attribute it to a Solar Flare!

**Game Effect:** Electromagnetic Storms come in Strengths ranging from 11-30 (d20 +10). These storms act as Jamming Fields, requiring any successful communication attempt to succeed at a Communications Operations check (DC the storm's Strength). If the Storm's strength is higher than the ship's current Radiation shields, then one of the ship's systems (determined randomly), takes a Hit every minute. See the Starship Combat chapter, Critical Hits, for information on the effects of damage on a ship's systems, and a table where you can determine what systems are affected randomly.

## HYPERDRIVE SHADOW

### *Space Opera*

This event can occur only in normal space, but will only happen in campaigns where Hyperdrives are in use. Not fully understood, it is theorized that a Shadow is a ship in hyperspace passing through another ship. When this happens, the engines of the ship in real space are sent into overdrive, requiring a Repair check (DC 15) to shut down. If the engine is not shut down, it will burn out (treat as a Catastrophic Malfunction).

## HYPERSPACE RIFT

### *Space Opera*

These phenomena will only occur to a ship in hyperspace. If not detected in time (Sensor Operations check DC 20), a ship that flies into one of these rifts will be dumped out of hyperspace in a random location 1-20 LY away from its intended destination. Furthermore, this phenomena damages a ship's hyperdrive. This damage is treated as a Severe Malfunction (Repair DC 20), and will require several hours to get the hyperdrive online again.

## HYPERSPACE STORM

### *Space Opera*

These extremely rare phenomena occur only in hyperspace. Dangerous in the extreme, these storms are legendary for stranding travellers far from home. A storm is so violent that it is easily detected, avoiding it is another matter entirely, requiring either a Pilot check (DC 25) to avoid the massive roiling fast-moving cloud, or a Repair check (DC 20) to dump the ship back into real space. This damages the hyperdrive, treated as a minor malfunction (DC 15). A ship caught in one of these storms is swept 1-1000 LY away in a random direction and its hyperdrive damaged as detailed in Hyperdrive Rift, above.

## MOONS, GENERAL RULES

Moons can be used to provide cover from sensors and weapons in starship combat. Moons are rated in terms of size and gravity. A ship in flight using a moon for cover must make a piloting check, DC 20- the moon's Size. This raises the DC to detect the ship by  $\frac{1}{2}$  the Moon's Size. A tiny moon can also provide Concealment from attacks on a piloting check. Again the DC is 20- Size, with the character gaining a 10% miss chance on all attacks for each 5 points by which the DC is exceeded.

An Aerodynamic Ship gains twice the Moon's Size as Concealment from Sensors if it lands. However, if detected, the ship will gain no Cover from the planet until it successfully lifts off. A ship lifting off from a planet is flat-footed until it gains enough altitude to maneuver. This takes 1 round per Size of the Moon, minus one round for each 5 points of Acceleration the ship has (so a ship lifting off from a Size 6 Moon, with +10 Acceleration, would be flat-footed for four rounds). A Moon with Atmosphere provides even more concealment, adding +2 to the DC to detect a craft in the air, and +5 to the DC to detect a craft on the ground.

Moons are less likely to have an atmosphere than a planet of similar size. A d20 roll of less than or equal to  $\frac{1}{2}$  the Moon's Size indicates the presence of an atmosphere. Whether that atmosphere is hospitable to humans is completely up to the discretion of the GM. It takes a ship a number of minutes equal to the Moon's size, minus one minute per five points of the ship's Acceleration, to clear the atmosphere of a planet. So a ship with +10 Acceleration would take 4 minutes to leave the atmosphere of a Size 6 Moon to reach vacuum. An aerodynamic ship, fighting an opponent who's ship is not aerodynamic, is unlikely to *want* to leave the atmosphere of any planet.

Moons Generate 1 Gravity per 5 points of size, so a Moon of Size 1-5 has a Gravity Well of 1, a Moon Size 6-10 has a gravity well of 2, and so on.

**Moon, Tiny:** A Tiny Moon's Size is 1-6.

**Moon, Small:** As above, except Small Moons are Size 3-8 (d6+2).

**Moon, Medium:** A Medium Moon is Size 7-12 (d6+6).

**Moon, Large:** A Large Moon is Size 9-14 (d6+8).

## NEBULA, PLANETARY

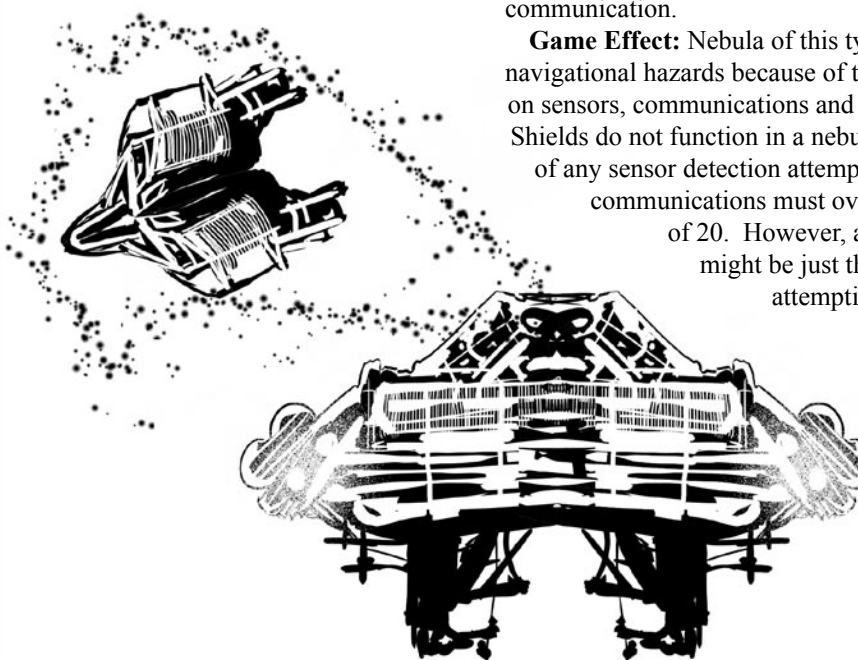
Named in the 17<sup>th</sup> century for their often circular shape and apparent small size, these are the beautiful glowing structures left behind by ordinary stars like Sol as they reach the end of life. A red giant star, sheds its outer layers to a region of space no more than a few light years across, leaving behind the core, a super hot dense white dwarf in the center to keep the shell lit for ages to come.

**Game Effect:** The least bothersome of all the nebula types, these phenomena nevertheless are the bane of sensor and communication operators. For sensors, the DC of any detection attempt is raised by five. Communications attempts must overcome a Jamming field of 15 to be successful.

## NEBULA, SUPERNOVA REMNANT

Such structures can range in size from a few light years for young ones to 100's of light years for very old ones. In the young case, the region is often a highly charged electro-magnetic maelstrom as it is really still exploding outward at  $\frac{1}{4}$  of the speed of light and being aggravated by the effects of the central remnant, often a Neutron Star, Pulsar and/or Neutron Star Magnetar. The remnant might include jets, pulsar wind, a powerful Accretion Disk, etc... Tremendous magnetic fields disrupt most forms of communication.

**Game Effect:** Nebula of this type are considered navigational hazards because of the havoc they wreak on sensors, communications and shield technologies. Shields do not function in a nebula of this sort. The DC of any sensor detection attempt is raised by 10, and communications must overcome a Jamming Field of 20. However, a nebula of this sort might be just the place to go for a ship attempting to avoid detection.



## NEBULA, GIANT CLOUD, LIGHT

Listed as very rare because they don't exist in large numbers in a galaxy, but their size really makes that moot. As much as 20 to 30% of the lit parts of a spiral galaxy might be involved in these vast, sprawling clouds. Most of their confines will be thin wispy material that is for the most part transparent up close. Small areas, 100's of light years across can be very dense star forming regions though, which would impair sensors and impede high velocity motion, which could cause tremendous friction and heating. Shield technologies might also be effected. Some small regions of these objects can be so dense as to appear as dark edges or sacks within the larger lighted regions.

**Game Effect:** In High Density areas, treat these clouds as a SuperNova Remnant Nebulae. In medium densities, treat them as a Planetary Nebulae. Extremely dense regions require a ship to reduce speed below .5 c. For this reason, the dense parts of these phenomena are charted and avoided by space travellers.

## NOVA

Much more frequent than their supernova counter parts, these events do not represent the cataclysmic destruction of a massive star. They are instead smaller explosions that in some systems occur over and over. The most common case is a Binary Star System in which a White Dwarf or Neutron Star Remnant is leaching material onto A Small Accretion Disk. When the disk reaches a critical mass... -KABOMB- It ignites in a fusion explosion. The onset of such an event would not be a complete surprise to anyone studying the phenomena, with knowledge of physics; however, the exact timing might not be obvious. Being within a few AU's of such an event would be highly destructive as the blast wave expands outward at  $\frac{1}{4}$  to  $\frac{1}{2}$  c.

**Game Effect:** Rolling this terrain feature assumes that a ship is within the Nova's blast radius. Every minute that the ship is there, there is a 1 in 20 chance (cumulative) of an explosion. This explosion will deal 20d6 damage to the entire map. Although the exact timing of the explosion can never be predicted with complete accuracy, a character with Knowledge (Physics) could make a skill check (DC 20) to find out what the current *count* is. In other words, on a successful check, the GM would tell the character that in one minute, the chance of Nova is 8 in 20.

## NOVA, SUPER

Gigantic cataclysmic stellar explosions, supernova mark the end of life for a star. Four types are: 1) An ancient red giant or super giant star's core has burned the last of its nuclear fuel and begins to collapse. The outer layers, no longer suspended by the pressure from the fires beneath fall inward, suddenly igniting in a huge conflagration. Five percent of the total matter of the star is burned and explodes outward at  $\frac{1}{2}$  c. Anything weaker than the core

of another star caught within a few light years of the event is doomed to destruction if it can not escape the blast wave. A violent Supernova Remnant is left behind. 2) A White Dwarf with a carbon core absorbs enough material to pass the Chandrasekar White Dwarf limit of 1.4 solar masses and gravity begins to crush the carbon nuclei. The carbon suddenly explodes in a runaway fusion blast wave that digests the entire star. These events produce an explosion brighter than all the other stars in the host galaxy together. The destructive blast wave will reach 20 light years in diameter. A wall of very high energy light will instantly photodisintegrate (utterly destroy at the atomic level) anything inside 10 AU's of the event. 3) The White Dwarf core is iron, which absorbs energy if forced to fusion, so the remnant collapses in a „silent“ supernova, shining very brightly only in neutrinos as its atoms are destroyed once and for all. A Neutron Star results. 4) A Neutron Star absorbs enough matter to pass 3 suns and implodes. The strong nuclear force of its constituent neutrons is not enough to hold back gravity and the remnant falls out of space, forming a Small Black Hole.

**Game Effect:** These events never occur randomly. A battle only takes place near one at the GM's discretion. The timing of the explosion is likewise the GM's discretion, as an event of this magnitude builds for years, if not centuries, before the final explosion. A character with Knowledge (Physics) might again be able to determine the general timing, but this check is a little easier (DC 15). A SuperNova explosion does 40d6 damage to the entire map.

An adventure could easily be constructed around an imminent SuperNova. Perhaps a nearby planet or station needs to be evacuated before the explosion. All nearby ships, especially merchant ships with huge cargo holds, could be pressed into service to help transport refugees off planet. An enemy could flee to the blast radius as the ultimate form of Brinksmanship („You might destroy me, but I can avoid you for five minutes longer, I'll take you with me!“)

## PLANETS, GENERAL RULES

Planets can be used to provide cover from sensors and weapons in starship combat. Planets are rated in terms of size and gravity. A ship in flight using a planet for cover must make a piloting check, DC 20- the planet's Size. This raises the DC to detect the ship by  $\frac{1}{2}$  the Planet's Size. A tiny planet can also provide Concealment from attacks on a piloting check. Again the DC is 20- Size, with the character gaining a 10% miss chance on all attacks for each 5 points by which the DC is exceeded.

An Aerodynamic Ship gains twice the Planet's Size as Concealment from Sensors if it lands. However, if detected, the ship will gain no Cover from the planet until it successfully lifts off. A ship lifting off from a planet is flat-footed until it gains enough altitude to maneuver. This takes 1 round per Size of the Planet, minus one



round for each 5 points of Acceleration the ship has (so a ship lifting off from a Size 6 Planet, with +10 Acceleration, would be flat-footed for four rounds). A Planet with Atmosphere provides even more concealment, adding +2 to the DC to detect a craft in the air, and +5 to the DC to detect a craft on the ground.

**Atmosphere:** Many planets have an atmosphere. A d20 roll of less than or equal to the Planet's Size indicates the presence of an atmosphere. Whether that atmosphere is hospitable to humans is completely up to the discretion of the GM. It takes a ship a number of minutes equal to the Planet's size, minus one minute per five points of the ship's Acceleration, to clear the atmosphere of a planet. So a ship with +10 Acceleration would take 4 minutes to leave the atmosphere of a Size 6 Planet to reach vacuum. An aerodynamic ship, fighting an opponent who's ship is not aerodynamic, is unlikely to *want* to leave the atmosphere of any planet.

Some Atmospheres are *Caustic*. A Caustic atmosphere is acidic, and damages any ships or creatures in that atmosphere (note this does not prevent a planet from having life in Space Opera games, any creatures living on such a world would need Acid Resistance). If a planet is Caustic, the GM should roll 1d6 to determine how caustic the planet is. Characters and ships in a Caustic atmosphere will take that much damage each minute (10 rounds) they remain in the planet's atmosphere. Acid damage is resisted by the Physical DR of ships and spacesuits, however, any hull or suit not designed for a caustic environment will lose one DR each round, until the protection is gone. Breathing a caustic atmosphere causes a character to immediately begin smothering, and inflicts 1d6 damage for each point of the planet's Caustic modifier each *round*. Once the Physical DR of a ship is breached, so is its hull. Treat this as a Hull, Minor critical. After one round per Size Class of the ship has passed, this will become a Hull, Major, if the ship has not left the atmosphere of the planet yet.

**Tumultuous Planets:** Some planets are *Tumultuous*. A Tumultuous planet is one that, for whatever reason, makes piloting difficult. Venus, with its maelstrom of storms, IO, the most volcanically active body in the solar system, and Mercury, whose naked surface is pelted by violent radiation, powerful solar winds and magnetic burts, and even the occasional solar flare, are all examples of Tumultuous planets. The GM rolls a 1d6 to determine how tumultuous the planet is. Any craft flying close to a Tumultuous planet is harder to detect. The DC of any Sensor Operations check is increased by an amount equal to the planet's Tumultuous modifier. Any craft attempting to maneuver close to the planet suffers a penalty to all piloting checks equal to the planet's Tumultuous rating. Landing on such a world is very dicey. A Piloting check of 10 + the planet's rating is required to safely land on such a world. Failure results in a Crash Landing (see below).

**Irradiated Planets:** Some planets are irradiated. This radiation can either be from an outside source, or

internally generated. Mercury and IO are examples of irradiated planets. If a planet is irradiated, the GM should roll 1d20 to determine the extent of the radiation. A ship or character will take that much radiation damage each minute they are close to the planet (close enough to be within the planet's atmosphere, if it had one, is a good way to judge what's close and what isn't). An unprotected character exposed to the surface of such a world will take 1d6 + the planet's Radiation rating points of Radiation damage each round.

**Gravity:** Planets Generate 1 Gravity per 5 points of size, so a Planet of Size 1-5 has a Gravity Well of 1, a Planet Size 6-10 has a gravity well of 2, and so on.

**Landing on planets:** Landing on a planet with an aerodynamic craft requires a piloting check of 20, minus the size of the planet (the larger the planet is, the more likely a flat stretch of ground suitable for a landing field will be discovered). Unless there are special conditions on the planet, such as a tumultuous atmosphere or a storm system that make the landing difficult, the pilot can take 10 on this check.

**Crash landings:** Sometimes a ship will crash while landing. If a ship that isn't aerodynamic is forced to land, a crash landing is the only kind of landing it can make. When a ship makes a crash landing, it takes damage based on its size as follows: Dreadnoughts take 16d6 Hull Points, Capital Ships 12d6, Huge Ships 9d6, Large 6d6, Medium 6d6, Small 5d6, Tiny 4d6, and Diminutive 3d6. A Ship also suffers 1-6 Critical Hits, one of which is always a Major Hull critical from a crash landing. A Piloting check of 25 reduces the damage and number of criticals by half.

**Moons:** Many Planets have moons circling them as they circle Stars. On a d20 roll less than or equal to the Planet's Size, it has one moon. The maximum Size class of a moon is two less than the planet itself. So a Medium Planet may have a Tiny Moon, and so on. The Size of these moons may be determined randomly for their class. If a planet has one Moon, roll to see if it has another, using the same procedure detailed above, except subtract 2 from the Planet's Size. If a planet has a second moon, roll again at minus four, and so on.

Planets with one or more moons provide even better concealment from Sensors, as a ship can get between the moon and its Planet. On a successful Piloting check DC 25- the Moon's Size, the character has placed his craft directly between the moon and the planet it circles. The ship gains the Cover bonuses for the moon and its planet combined.

**Gas Giants:** Gas Giants, the largest planets, have many unique characteristics, the most notable of which are ring systems and permanent storm features. Gas Giants have small solid cores, where the gravity would crush any ship, thus, a ship cannot land on these planets. An aerodynamic ship (or one with Buffalo Wings) can go into the atmosphere of a Gas Giant to gain extra cover, but doing so carries with it great risk. A ship within the atmosphere of a Gas Giant gains Concealment from Sensors equal

to 1/3 the Planet's Size. However, the character must make a piloting check each round of  $10 + 1/3$  the Planet's Size or his ship suffers 1d6 points of damage. Shields do not protect from this damage, though armor does.

Many Gas Giants have Ring Systems associated with them. On a d20 roll of less than or equal to the planet's Size-20, that planet has a ring system. Ring Systems are rated by their Density, and the Density of any Ring System is  $\frac{1}{2}$  the roll to determine if a Ring System is present. For example, the GM determines that combat will take place around a Medium Gas Giant (Size 31). This means, on a roll of 11 or less (31-20), the Gas Giant will have a Ring System. The GM rolls, and rolls a 9, thus the planet has a Ring System, with a Density of 4 (half of 9).

**Rings:** A Ring System increases the cover of a planet by its Density. However, flying through the Ring can damage a starship. To safely fly through a Ring, a pilot must succeed at a Piloting check, DC  $10 +$  the Ring Density, plus his current speed. If a ship fails this check, it suffers 1d6 for each point by which the roll was failed. The maximum damage that can be suffered from failing such a check is 1d6 per Density of the Ring System.

Less common than Ring Systems, many Gas Giants still have enormous, permanent Storm systems. Jupiter's Red Spot is an example of this type of storm. A Storm system causes the planet's atmosphere to behave like a Tumultuous atmosphere (see above) only these storms are much more powerful than any that might occur on a terrestrial planet, ranging in strength from 7-12 (d6+6). A Gas Giant has a Storm system on a d20 roll of Size -30. Continuing the above example, the GM rolls to see if the planet has a Storm system. He needs to roll a 1 (31 minus 30).

In a Space Opera game, the GM could put Ring Systems and Storm Systems on terrestrial planets as well. These would never occur randomly and are only present at the GM's discretion.

**Planet, Tiny:** These planets are really just freefloating moons in orbit around a Star rather than a planet. Tiny Planets are Size 3-10 (d8+2).

**Planet, Small:** Small Planets are Size 7-14 (d8+6).

**Planet, Medium:** Medium Planets are size 9-16 (d8+8).

**Planet, Large:** Large Planets are size 13-20 (d8+12).

**Planet, Gas Giant, Small:** Small Gas Giants are size 13-32 (d20+12).

**Planet, Gas Giant, Medium:** Medium Gas Giants are size 21-40 (d20+20).

**Planet, Gas Giant, Large:** Large Gas Giants are size 31-50 (d20+30).



## SOLAR FLARE

Huge explosions of material leap from the surface of stars, guided into arcs and filaments by powerful magnetic dynamos. The largest arcs can reach a first or second planetary orbit, depending on how close the planets and how active the star. Sunspots are an indication of activity level and warn of impending flares. Far away from the star, the flare manifests as an Electromagnetic Storm. If a Solar Flare is rolled, it means, if plausible, the very dangerous multi-million degree, bright red, visible plasma arc or filament(s) of the flare have reached the encounter. EM Storm results will indicate far away flares. Large scale flare arcs can remain stable for several minutes. Power station transformers on Earth have occasionally been destroyed by massive charge surges in long powerlines, cause by Solar Flares. And this is under the protection of the Earth's magnetic field and atmosphere!

**Game Effect:** If combat occurs close to a star (the Star is placed on the map by the GM), there is a cumulative 1 in 20 chance each minute (10 rounds) of a Flare eruption. A Flare extends out from the star in a random direction for 1-20 Hexes. Should a ship be along this arc, the pilot must make a piloting check of 30 minus the ship's Distance from the star. If this check is failed, the flare has struck the ship, which suffers 20d6 damage. For example, two ships are fighting near a star. One is 19 Hexes away, when a Flare erupts, and passes into the ship's hex. Since the ship is 19 hexes away from the star, the pilot must roll a DC of 11 (30-19) to avoid the flare.



## WORMHOLE

### *Space Opera*

These phenomena act like Jump Gates, but with a seemingly unlimited range. Some are stable at one end, but with a random destination at the other, anywhere from 1-1,000 light years distant. Some are unstable at both ends, and some are completely stable. These last are the rarest wormholes of all, and serve as important strategic links which are heavily defended on both sides, and fought over by powerful interstellar empires. If the GM decides to use wormholes in his campaign, he must decide if these are natural phenomena, or the creation of a powerful alien race, or both.

## EPILOGUE

White-knuckled, Admiral Antilles gripped his command chair as the swirling surface of Neptune whipped by, faster and faster.

"Commander Zeleznik! Status report!"

"Red line Admiral! It should have spiked by now, I don't under..."

Suddenly, there was a wrenching sound. An explosion. A fire broke out from the science console, and Lieutenant Lewis fell to floor, rolling around frantically, his hair on fire.

"Damage Control, Bridge immediately. Carstares, we have an uncontrolled fire up here, fire suppression system not functioning! Engine room! Report!"

But only static returned through the link.

Suddenly, Lieutenant Cook shouted from the helm console as the ship twisted and bucked, "All hand brace

for impact!"

The claxon of the collision alarm was deafening, and Admiral Antilles watched, helplessly, as the helmsman tried gamely to avoid the huge freighter so close to the massive carrier. The view of Neptune returned to the view screen as the ship bucked, knocked into a spin by the collision with the massive trawler.

Then, slowly, the ship seemed to right itself. Lieutenant Cook was still at the controls, and despite the massive impact, the ship seemed to have held up rather well.

At least it was a modern vessel. Antilles thought, as he looked through the cracked viewscreen at the trawler, which seemed to have faired all right from the nick it suffered. He should have realized a return to the future would put them right in the middle of the Neptune commercial traffic, but they needed the slingshot for the extra speed.

"Engine room! Report!"

Still no answer.

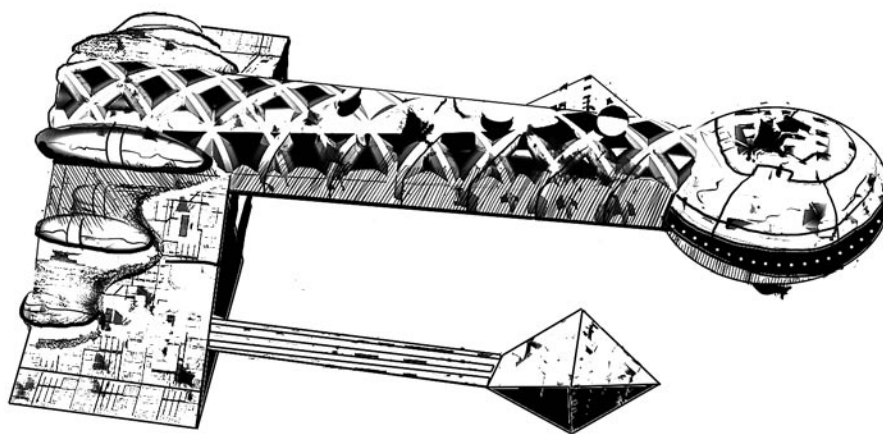
"Lieutenant Cook, you have the bridge. Dispatch repair crews and medical personnel to the trawler, ask her if she needs assistance."

...

Captain Armstrong stopped the Admiral in the corridor before he reached the engine room. His right arm was sheared off at the elbow. Clean. No blood. There never was.

"How are the rest of them Captain."

Armstrong just shook his head. "Dead Admiral. All of them."

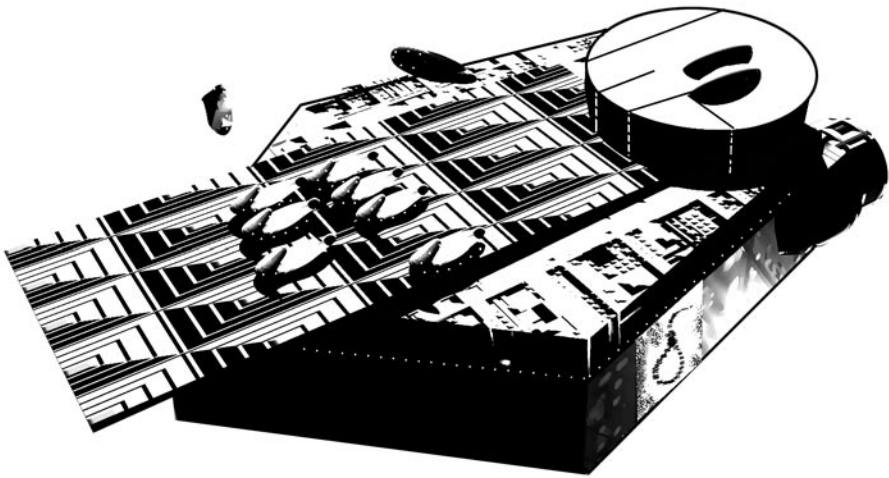




# GALLOWS-CLASS PIRATE CARRIER

Cost: 223Kcr; 350KCr with 10 Noose class fighters and 1 Hermes Class Courier

These slow, lumbering craft, the signature vessel of the Hangman Pirate Clan are built on the principle of boarding actions to seize valuable cargo and hostages. With their Noose-Class fighters to grapple and immobilize ships, these enormous craft can close and board at their leisure.



Corp 3(Large)	10	8 Large	Altair	200cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

HULL POINTS	60	
TOTAL		CURRENT

ACCELERATION	5	=	8	+	-3	+	0
	TOTAL		BASE		WEAPONS		MISC
POWER	4	=	15	+	-3	+	-8
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	+5	=	1	+	4	+	0
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	9	=	10	+	-1	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Borated Gel Capillary Exchange	20 All	+4	0
Magnetospheric Shield III	30 All	0	3

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
2 Helium Ion Plasma	En	large	forward	E (16)	7d6
6 Turreted Focused Microwaves	En	small	3 left, 3 right	L(8)	5d6
Large Missile Launcher	-	large	-	-	-
2 Large Missile Racks	-	-	-	-	-

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE
10 Smart Missile III	Phys	large	+10	+12	10d6
6 Smart Missile II	Phys	small	+8	+10	8d6

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

CARGO	47	=	100	-	53
	FREE		TOTAL		USED

STARSHIP FACILITIES		
NAME	CARGO	POWER
Flight Deck	8	6
10 Noose Class Fighters	10	-
1 Hermes Class Fighter	1	-
10 Troop Transport Bays	30	-
Medical Ward	2	2
Gymnasium	2	

CREW				MAH: 12
TYPE	QUALITY	MODIFIER	EXPERIENCE	
Flight				
Medical				
Marines (10)				

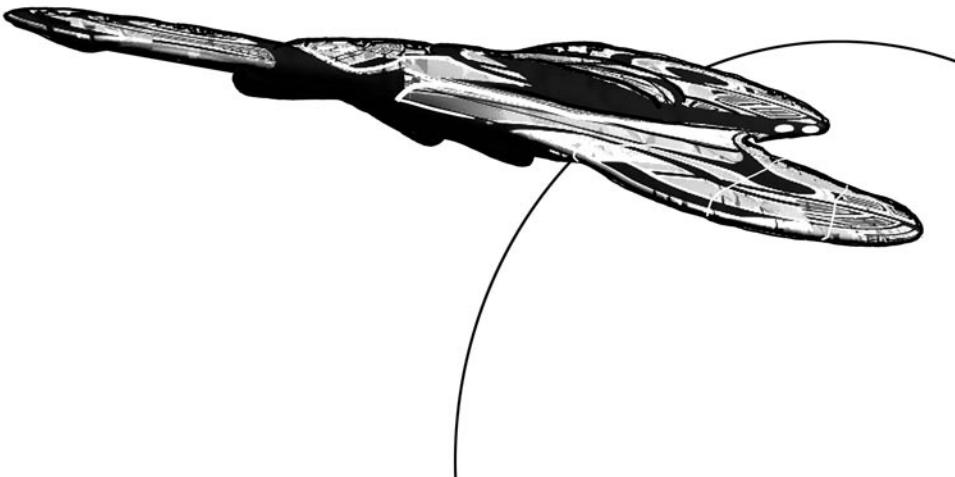
MISC EQUIPMENT	
EQUIPMENT	EFFECT
Jamming Field	Communications DC 20
3 Chaff	50% chance for missile to detonate

COMPUTER		INT: 10
HARDWARE/SOFTWARE	EFFECT	
Dedicated Nav Computer	Int 10	
Navigation (Advanced)	+4 to Navigation rolls	

# HERMES-CLASS COURIER

Cost: 24Kcr

A small, fast, no-frills ship, used to carry information too important to be trusted over the open airwaves, or a small, highly valuable cargo. In some cases, a *person*, or perhaps two, who wish to travel without any “entanglements” have been crammed into this ship’s tiny cargo hold.



Civ 2(Tiny)

HULL (SIZE)

1

PASSENGERS

0

PORTS

Achemar

STAR DRIVE

500cr/month

OPERATING COST

HULL POINTS

15

TOTAL

CURRENT

ACCELERATION

10 = 10 + 0 + 0

TOTALBASEWEAPONSMISC

POWER

14 = 15 + -1 + 0

FREEBASEDEFENSEFACILITY

TURN MODIFIER

-2 = -2 + 0 + 0

TOTALSIZEDEFENSEMISC

DEFENSE

12 = 10 + 2 +

TOTALSIZEPILOT

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Titanium/Gold/Beryllium	10 Phys, 10 Rad	0	0
Magnetospheric Shield I	20 Rad	0	1

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

CARGO

500 lbs = 500 lbs - 0

FREETOTALUSED

STARSHIP FACILITIES		
NAME	CARGO	POWER

CREW				MAH: 1
TYPE	QUALITY	MODIFIER	EXPERIENCE	

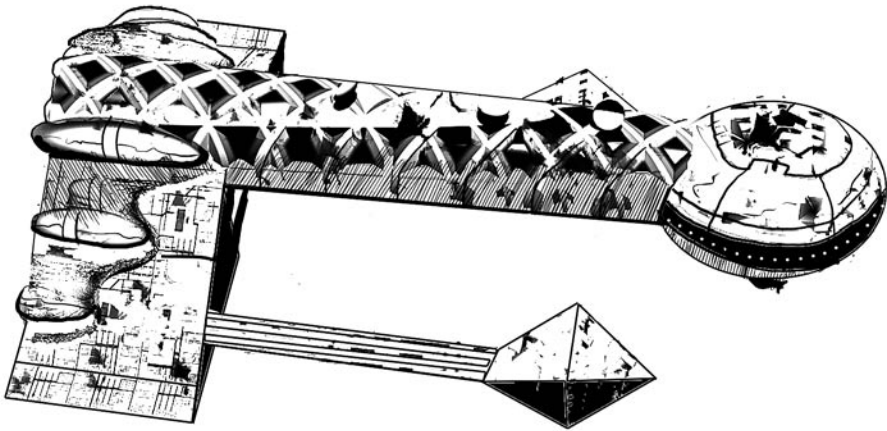
MISC EQUIPMENT	
EQUIPMENT	EFFECT
Aerodynamic Design	No penalties in atmosphere
Afterburners 4:1 (2:1 w/Size mod)	Converts each 2 Power into +1 Acc
Booster Rockets +2	+2 Acceleration for long journeys

COMPUTER		INT: 12
HARDWARE/SOFTWARE	EFFECT	
Dedicated Nav Computer	Int 12	
Navigation (Simple)	+2 to Navigation rolls	

JERICHO-CLASS INDEPENDENT SURVEY VESSEL

Cost: 43Kcr

These ships are often battered converted Haulers, with their cargo space converted into laboratory facilities. Otherwise, these craft are Spartan in their design, built for neither comfort nor speed. Often these ships are the first to map uncharted systems. Good, well-rounded ships, these craft never know what they may encounter. Most often, these ships are run by independent corporate contractors, who receive a commission for any valuable worlds they discover.



Civ 5(Med)	2	1 Large	Aldebaran	75 cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

CARGO	13	=	20	-	7
	FREE		TOTAL		USED

HULL POINTS	30	
TOTAL		CURRENT

ACCELERATION	6	=	6	+	0	+	0
	TOTAL		BASE		WEAPONS		MISC
POWER	1	=	6	+	-1	+	-4
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	3	=	0	+	3	+	0
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	10	=	10	+	0	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Mimetic Organic Plating:	10 All	+3	0
Magnetospheric Shield I	20 Rad	0	1

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
Rail Gun II	Phys	large	forward	M (4)	7d6

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE
2 Gravitic Mines	Phys	large	+4	-	8d6

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

STARSHIP FACILITIES		
NAME	CARGO	POWER
Medical Ward	2	2
Lab	2	2

CREW				MAH: 3
TYPE	QUALITY	MODIFIER	EXPERIENCE	
Science				
Medical				

MISC EQUIPMENT	
EQUIPMENT	EFFECT
Emergency Beacon	Black Box
2 Chaff	50% chance for missile to detonate
Ram Scoop	Operating Cost -50%

COMPUTER		INT: 18
HARDWARE/SOFTWARE	EFFECT	
Super Computer	Int 18	
Navigation (Advanced)	+4 to Navigation rolls	
Antivirus (Simple)	+2 resisting viruses	
AutoPilot	pilot the ship out of combat	
Textbook (Exobiology)	Exobiology +4	

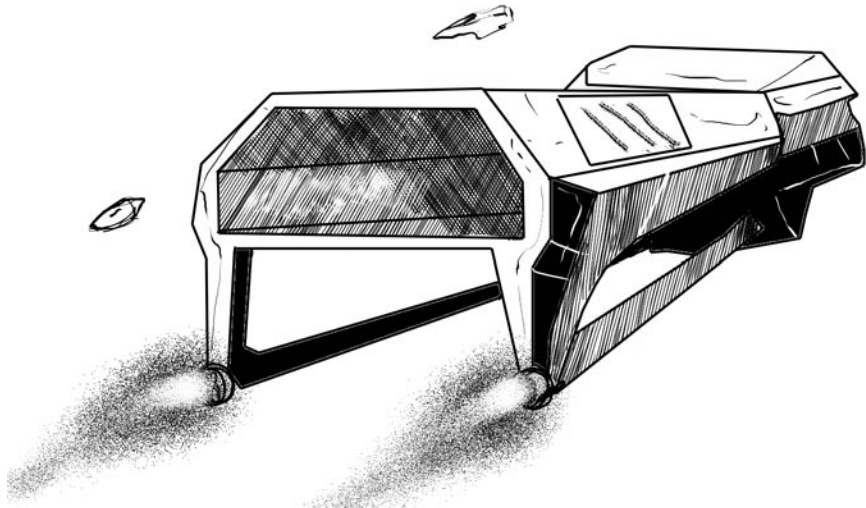


# LONE WOLF-CLASS PIRATE LIGHT CARRIER

Cost: 106Kcr; 236.7Kcr w/ 10 Wolf Fighters

As the Wolf Clan rose to prominence, they began to convert enormous old merchant vessels into carriers for their fighters. This brought the clan into a golden age, as they could now expand the reach of their fighters, bring numerous Captains together for big scores, and retreat into deep space to avoid patrol craft.

**Note:** This ship's acceleration increases when all fighters are launched.



Corp 2(Large)	6	6 Large	Altair	100cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

CARGO	12	=	50	-	38
	FREE		TOTAL		USED

HULL POINTS	50	
	TOTAL	CURRENT

ACCELERATION	4/6	=	8	+	0	+	-2/-4
	TOTAL		BASE		WEAPONS		MISC
POWER	7	=	15	+	-4	+	-4
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	2	=	1	+	1	+	0
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	9	=	10	+	-1	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Kevlar Cellulose Plating	15 Phys. 5 En, 10 Rad	+3	0
Magnetospheric Shield II	20 All	0	4

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
Rail Gun I	Phys	large	forward	M (4)	5d6
Rail Gun I	Phys	large	aft	M (4)	5d6
2 Xenon Ion Plasma	En	large	forward	L (8)	8d6
4 Magnetic Harpoons	*	small	forward	B (1)	*

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

STARSHIP FACILITIES		
NAME	CARGO	POWER
Hanger Deck	6	4
10 Fighters	20	0
4 Troop Transport Bays	12	0

CREW				MAH: 10
TYPE	QUALITY	MODIFIER	EXPERIENCE	
Flight				
4 Marines				

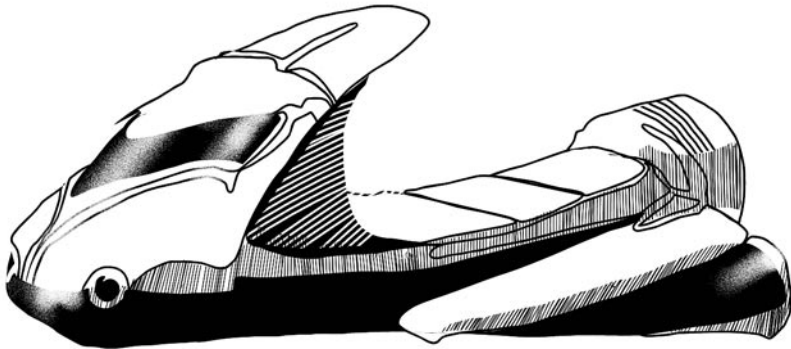
MISC EQUIPMENT	
EQUIPMENT	EFFECT
Ram Scoop	Operating Cost -50%
Afterburners 3:1	Converts each 3 Power into +1 Acc

COMPUTER		INT: 10
HARDWARE/SOFTWARE	EFFECT	
Dedicated Nav Computer	Int 10	
Navigation (Simple)	+2 to Navigation rolls	

# NOOSE-CLASS FIGHTER

Cost: 14Kcr

The Hangman Pirate clan use these fighters, armed only with Magnetic Harpoons, to immobilize their targets so the slow, lumbering, Gallows-Class Carriers can close and overrun the helpless victim with Marines.



Fighter 3(Dim)

0

1 Small

Spica

50cr/month

HULL (SIZE)

PASSENGERS

PORTS

STAR DRIVE

OPERATING COST

CARGO

25 lbs

=

25 lbs

-

0

FREE

TOTAL

USED

HULL POINTS

15

TOTAL

CURRENT

ACCELERATION

7

=

5

+

0

+

2

TOTAL

BASE

WEAPONS

MISC

POWER

6

=

6

+

0

+

0

FREE

BASE

DEFENSE

FACILITY

TURN MODIFIER

-3

=

-3

+

0

+

0

TOTAL

SIZE

DEFENSE

MISC

DEFENSE

14

=

10

+

4

+

TOTAL

SIZE

PILOT

STARSHIP FACILITIES		
NAME	CARGO	POWER

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Titanium/Gold/Beryllium	10 Phys, 10 Rad	0	0

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
Magnetic Harpoons	*	small	forward	B (1)	*

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

CREW				MAH: 1
TYPE	QUALITY	MODIFIER	EXPERIENCE	

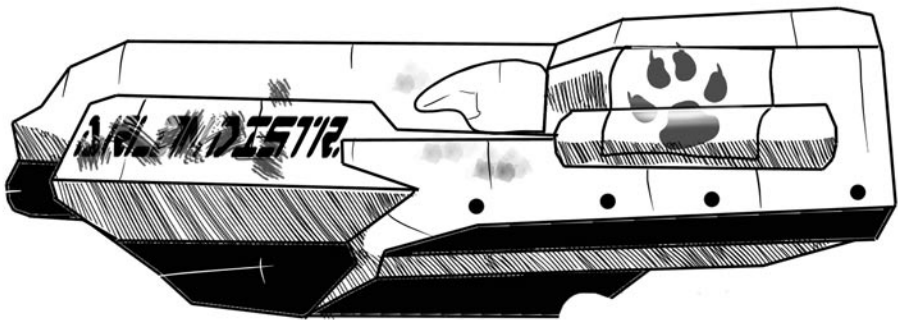
MISC EQUIPMENT	
EQUIPMENT	EFFECT
Aerodynamic Design	No penalties in atmosphere
Afterburners 4:1 (1:1 w/size mod)	Converts each 1 Power into +1 Acc

COMPUTER		INT: 0
HARDWARE/SOFTWARE	EFFECT	

# RAIDER-CLASS PIRATE CUTTER

Cost: 70Kcr

A fast, powerful, small pirate vessel in use by every pirate cartel, these craft specialize in hit and run attacks, these ships are unable to capture valuable cargo, due to their lack of marines. Rather, these vessels serve as escorts to rich Pirate Lords, and as a means for the cartels to settle old scores, and they have a lot of scores to settle.



Civ 5(Med)	2	1 Large	Altair	200cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

HULL POINTS	30	
TOTAL		CURRENT

ACCELERATION	7	=	8	+	-1	+	0
	TOTAL		BASE		WEAPONS		MISC
POWER	12	=	15	+	-1	+	-2
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	2	=	0	+	4	+	-2
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	10	=	10	+	0	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Borated Gel Capillary Exchange	20 All	+4	0
Magnetospheric Shield I	20 Rad	0	1

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
Xenon Ion Plasma	En	large	forward	L(8)	8d6
4 Turreted Focused Microwaves	En	small	3 forward, 1 aft	L(8)	5d6

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

CARGO	8	=	20	-	12
	FREE		TOTAL		USED

STARSHIP FACILITIES		
NAME	CARGO	POWER
4 Additional Small Weapon Ports	10	-
Medical Ward	2	2

CREW				MAH: 3
TYPE	QUALITY	MODIFIER	EXPERIENCE	
Helm				
Medical				

MISC EQUIPMENT	
EQUIPMENT	EFFECT
Afterburners 2:1	Converts each 2 Power into +1 Acc
Superior Thrusters	-2 Turn Modifier

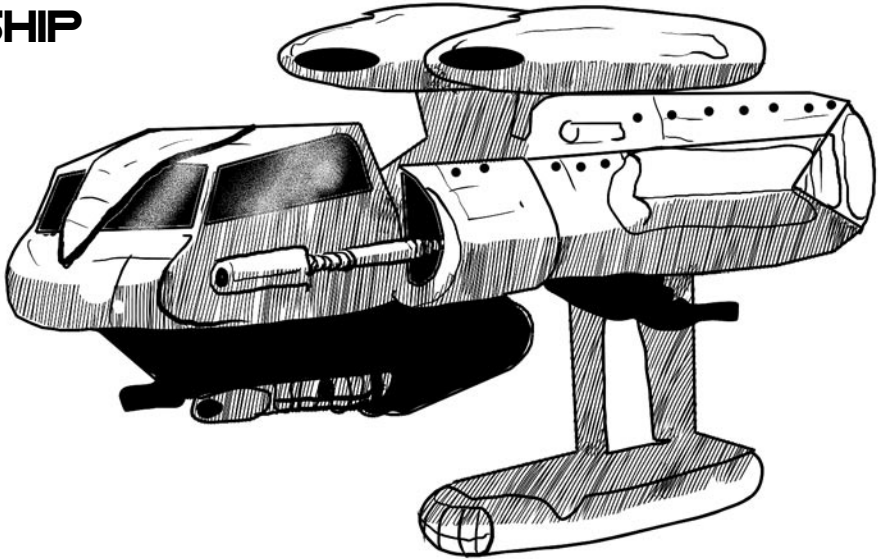
COMPUTER		INT: 10
HARDWARE/SOFTWARE	EFFECT	
Dedicated Nav Computer	Int 10	
Navigation (Simple)	+2 to Navigation rolls	



SHEPHERD-CLASS Q SHIP

Cost: 80Kcr

Q Ships are merchant vessels converted into warships. These craft travel with merchant convoys, posing as one of their lesser-armed brethren, waiting for pirates to attack. When they do, the Q Ship ensures them a nasty surprise. Although heavy and slow, the Shepherd compensates for this weakness with powerful armor, Magnetic Harpoons to restrain ships, and an impressive Marine compliment to board and seize pirate craft. In areas where Pirate activity is extremely high, these craft, which have impressive power supplies, are often retrofitted with afterburners, compensating for their one weakness.



Civ 5(Med)	2	1 Large	Altair	100cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

CARGO	0	=	24	-	24
	FREE		TOTAL		USED

HULL POINTS	30	
TOTAL		CURRENT

ACCELERATION	5	=	8	+	-1	+	-2
	TOTAL		BASE		WEAPONS		MISC
POWER	10	=	15	+	-3	+	-2
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	0	=	0	+	1	+	-1
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	10	=	10	+	0	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Kevlar Cellulose Plating	15 Phys, 5 En, 10 Rad	+1	0
Magnetospheric Shield III	30 All	0	3

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
Helium Ion Plasma	En	large	forward	E (16)	7d6
Turreted Proton Beams	En	small	port	E(16)	4d6
Turreted Proton Beams	En	small	starboard	E(16)	4d6
Turreted Magnetic Harpoons	*	small	port	B (1)	*
Turreted Magnetic Harpoons	*	small	starboard	B (1)	*

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

STARSHIP FACILITIES		
NAME	CARGO	POWER
4 Troop Transport Bays	12	-
Medical Ward	2	2
4 Additional Small Weapon Ports	10	-

CREW				MAH: 3
TYPE	QUALITY	MODIFIER	EXPERIENCE	
Medical				
4 Marines				

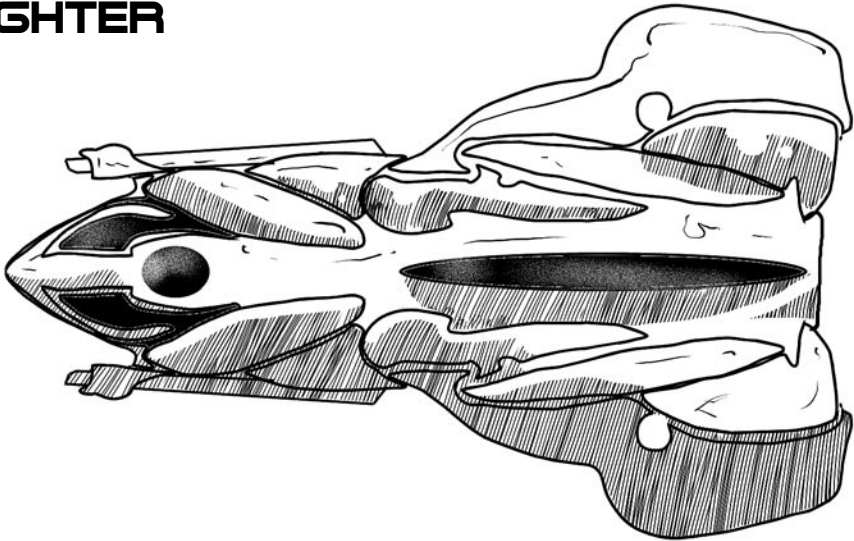
MISC EQUIPMENT	
EQUIPMENT	EFFECT
Ram Scoop	Operating Cost -50%
3 Chaff	50% chance for missile to detonate
Maneuvering Thrusters	-1 Turn Modifier
ALSS	+20% Cargo

COMPUTER		INT: 10
HARDWARE/SOFTWARE	EFFECT	
Dedicated Nav Computer	Int 10	
Navigation (Advanced)	+4 to Navigation rolls	

WOLF-CLASS LIGHT FIGHTER

Cost: 14Kcr

Older, out of service fighters, these have been adopted by the Wolf Pirate Clan, who have become known for these vicious fighters. Extremely fast, these craft are still so lightly armored that a single hit will destroy one. However, for the ambitious, would-be pirate captain, there is no better way to rise through the ranks of the Wolf Clan than to pilot one of these craft successfully. Wolf fighters are known for swarming their targets, overwhelming them with attacks that individually do little damage, but in such numbers as to take down much larger ships



Fighter 2(Dim)

0

2 PD

Spica

50cr/month

HULL (SIZE)

PASSENGERS

PORTS

STAR DRIVE

OPERATING COST

CARGO

25 lbs

=

25 lbs

-

0

FREE

TOTAL

USED

HULL POINTS

15

TOTAL

CURRENT

ACCELERATION

7

=

5

+

0

+

2

TOTAL

BASE

WEAPONS

MISC

POWER

6

=

6

+

0

+

0

FREE

BASE

DEFENSE

FACILITY

TURN MODIFIER

-3

=

-3

+

0

+

0

TOTAL

SIZE

DEFENSE

MISC

DEFENSE

14

=

10

+

4

+

TOTAL

SIZE

PILOT

STARSHIP FACILITIES		
NAME	CARGO	POWER

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Titanium/Gold/Beryllium	10 Phys, 10 Rad	0	0

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
2 PD Lasers	En	PD	forward	S(2)	3d6

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

CREW				MAH: 1
TYPE	QUALITY	MODIFIER	EXPERIENCE	

MISC EQUIPMENT	
EQUIPMENT	EFFECT
Aerodynamic Design	No penalties in atmosphere
Afterburners 4:1 (1:1 w/size mod)	Converts each 1 Power into +1 Acc
Chaff	50% chance for missile to detonate

COMPUTER		INT:
HARDWARE/SOFTWARE	EFFECT	

# WORKHORSE-CLASS FREIGHTER

Cost: 62Kcr

As its name implies, the Workhorse, along with its even larger sister-ship the Blue Collar, is the backbone of most merchant companies. Rugged and bulky, this craft was designed to maximize profits, with room for cargo and passengers.



Civ 6(Med)	3	2 Large	Acrux	100cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

CARGO	32	=	42	-	10
	FREE		TOTAL		USED

HULL POINTS	35	
TOTAL		CURRENT

ACCELERATION	8	=	7	+	-1	+	2
	TOTAL		BASE		WEAPONS		MISC
POWER	9	=	10	+	-1	+	0
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	+1	=	0	+	1	+	0
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	10	=	10	+	0	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Kevlar Cellulose Plating	15 Phys, 5 En, 10 Rad	+1	0
Magnetospheric Shield I	20 Rad	0	1

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
2 Turreted Focused Microwaves	En	small	forward, aft	L(8)	5d6
Rail Gun II	Phys	large	forward	M (4)	7d6

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE

BOMBS				
NAME	TYPE	SIZE	CARGO	DAMAGE

STARSHIP FACILITIES		
NAME	CARGO	POWER
2 Bulk Steerage	4	0
2 Guest Cabins	6	-

CREW				MAH: 4
TYPE	QUALITY	MODIFIER	EXPERIENCE	

MISC EQUIPMENT	
EQUIPMENT	EFFECT
Ram Scoop	Operating Cost -50%
ALSS	+20% Cargo

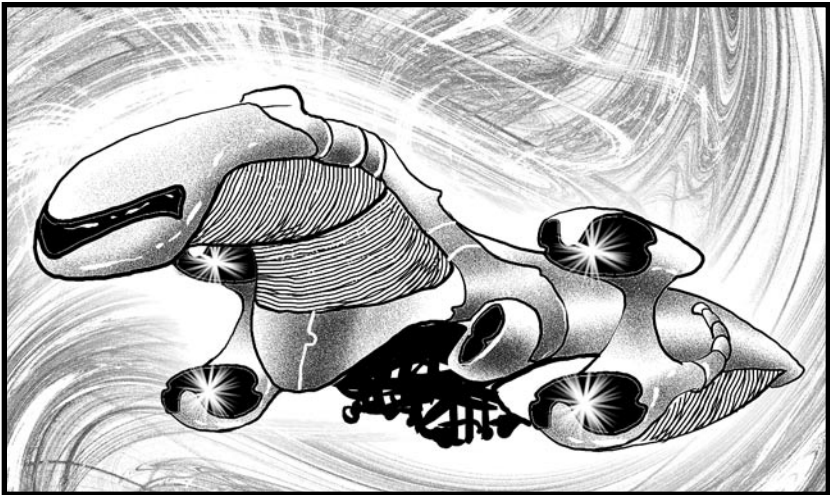
COMPUTER		INT: 10
HARDWARE/SOFTWARE	EFFECT	
Dedicated Nav Computer	Int 10	
Navigation (Superior)	+6 to Navigation rolls	



AENEAS-CLASS EXPLORATION/SURVEY VESSEL

(Space Opera)

These ships, known as “Aces” by the crews that serve on them, are the foremost achievement in man’s quest to explore the unknown. Only six of these vessels exist, and they are designed to operate alone, with help months or even years away as they explore uncharted territory. Because of the enormous responsibility the commanders of these craft possess, the United Sol System only chooses the best Starship Commanders, with the most finely honed Diplomacy and tactical skills, to command these ships of peace. The names of these vessels are drawn from Greek mythology, a race also known for exploration and seeking the unknown. The six ships currently in existence are: Aeneas, Achilles, Hector, Hercules, Hippolyta, and Perseus.



Mil 3(Capital)	20	7 Huge	Simple Hyperdrive	250cr/month
HULL (SIZE)	PASSENGERS	PORTS	STAR DRIVE	OPERATING COST

CARGO	170	=	300	-	30
	FREE		TOTAL		USED

HULL POINTS	150	
TOTAL		CURRENT

ACCELERATION	21	=	25	+	-4	+	0
	TOTAL		BASE		WEAPONS		MISC
POWER	21	=	50	+	-7	+	-22
	FREE		BASE		DEFENSE		FACILITY
TURN MODIFIER	1	=	3	+	1	+	-3
	TOTAL		SIZE		DEFENSE		MISC
DEFENSE	6	=	10	+	-4	+	
	TOTAL		SIZE		PILOT		

DEFENSE SYSTEMS			
NAME	DR	TURN MOD	POWER
Composite Alloy Mimetic Organic Plating	15 All	+1	0
Lancer II	70 All	0	7

WEAPON SYSTEMS					
NAME	TYPE	SIZE	ARC	RANGE	DAMAGE
2 AntiProton Beam	En	huge	forward	E(16)	10d6
4 Miniaturized Turreted Helium Ion Plasma	En	large	forward	E(16)	7d6
8 Miniaturized Turreted Proton Beams	En	small	forward	E(16)	4d6
2 Torpedo Launchers	*	*	huge	*	*
4 Torpedo Racks	*	*	huge	*	*

MISSILES AND MINES					
NAME	TYPE	SIZE	BAB	ACC	DAMAGE
20 AM Torpedoes II	Rad	huge	+14	+30	14d6

STARSHIP FACILITIES		
NAME	CARGO	POWER
Sick Bay	3	4
Research Facility	3	4
Exobiology	3	4
Gymnasium	2	0
Holo Gymnasium	7.5	6
Hanger Bay	5	2
Brig	3	2
3 Security Bays	4.5	0

CREW				MAH: 30
TYPE	QUALITY	MODIFIER	EXPERIENCE	
Medical				
Science				
3 Security				

MISC EQUIPMENT	
EQUIPMENT	EFFECT
Ram Scoop	Operating Cost -50%
ECM 2:1	Converts 2 Power into 10% miss chance
Phase Capacitor 2:1	Converts 2 Power into +1 energy damage
Advanced Thrusters	-3 Turn Modifier
Afterburners 2:1	Converts each 2 Power into +1 Acc

COMPUTER		INT: 32
HARDWARE/SOFTWARE	EFFECT	
Super Computer	Int 32	
Navigation (Superior)	+6 to Navigation rolls	
Antivirus (Superior)	+6 resisting viruses	
Autopilot	pilot the ship out of combat	

NAME

COST OWNER

# BLOOD AND SPACE

## D20 STARSHIP SHEET

HULL (SIZE) PORTS PASSENGERS STAR DRIVE OPERATING COST

HULL  
POINTS

TOTAL

CURRENT

ACCELERATION

POWER

TURN MODIFIER

DEFENSE

	=		+		+	
TOTAL		BASE		WEAPONS		MISC
	=		+		+	
FREE		BASE		DEFENSE		FACILITY
	=		+		+	
TOTAL		SIZE		DEFENSE		MISC
	=	10	+		+	
TOTAL		SIZE		PILOT		

CARGO

FREE

TOTAL

USED

### STARSHIP FACILITIES

NAME	CARGO	POWER

### DEFENSE SYSTEMS

NAME	DR	TURN MOD	POWER

### WEAPON SYSTEMS

NAME	TYPE	SIZE	ARC	RANGE	DAMAGE

### MISSILES AND MINES

NAME	TYPE	SIZE	BAB	ACC	DAMAGE

### BOMBS

NAME	TYPE	SIZE	CARGO	DAMAGE

### CREW

MAH:

TYPE	QUALITY	MODIFIER	EXPERIENCE

### MISC EQUIPMENT

EQUIPMENT	EFFECT

### COMPUTER

INT:

HARDWARE/SOFTWARE	EFFECT

### DESCRIPTION

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