

BLOOD AND SPACE:

HIGH FLYERS AND GROUND POUNDERS

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INTRODUCTION

Welcome to the first installment of the second edition of RPGLObjects' highly acclaimed Blood and Space supplement. This book and the others that follow in the series will endeavor to add new options and spice to d20 Future games revolving around starships and space combat.

This installment, High Flyers and Ground Pounders focuses on the fighters who soar through space and

the marines who hump through the muck of a desolate world. Next look for Blood and Space's signature setting, Prometheus Rising to return with an even bolder vision of a dark, gritty future as wondrous and mysterious as it is terrifying. Next we'll return to the toolkits with Merchants, Smugglers and Pirates focusing on... well... merchants, smugglers and pirates. Finally we'll continue with the third toolkit in the series, the Starship Construction Manual.

ADMIRAL ANTILLES held tight onto the arms of his command chair as the Repulse bucked from the impact of another torpedo. Several crewmembers 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? How the hell did they get their hands on those? 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 about 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 squadrons made sure the pirate's fighters 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 into the helm's comm. system the Admiral's voice radiated confidence and authority "Damage control crews: the main engine, the bridge and the lateral thrusters are your top priority. Captain Armstrong recall the fighters but tell them they all have to put in to launch bays 2 and 3, number 1 launch bay still has some hot fires and I don't want any fighter fuel added to them."

Then softly over his shoulder, so that only the two senior officers could hear, "And Captain... we are going to find out where those scum got those proximity fuses."

TABLE OF CONTENTS:

CHAPTER 1: CHARACTERS

NEW ALLEGIANCES

OPERATIONS EXPERT

STARSHIP GUNNER

STARSHIP MARINE

STARSHIP NAVIGATOR

SKILLS

FEATS

ADVANCED TRAINING

RANK

CHAPTER 2: STARSHIP COMBAT

CREW

SMALL UNIT COMBAT

TERRAIN

GRAVITY WELLS

ACCRETION DISK, SMALL

ACCRETION DISK, LARGE

ACCRETION DISK, GIANT

3

3

4

5

6

7

9

11

13

14

17

17

19

21

21

22

23

23

ASTEROID FIELD

ASTEROID FIELD

BLACK HOLE

COMET

COSMIC SUPER STRING

ELECTROMAGNETIC STORM

HYPERDRIVE SHADOW

HYPERSPACE RIFT

HYPERSPACE STORM

MOONS, GENERAL RULES

NEBULA, PLANETARY

NEBULA, SUPERNOVA REMNANT

NEBULA, GIANT CLOUD, LIGHT

NOVA

NOVA, SUPER

PLANETS, GENERAL RULES

PLANETOID

SOLAR FLARE

24

24

24

25

25

25

25

26

26

26

26

27

27

27

27

28

29

29

CHAPTER 1: CHARACTERS

Characters are the heart of any role playing game. This chapter provides new allegiances, classes and feats to make space combat more interesting and exciting in your futuristic d20 games.

NEW ALLEGIANCES

ACTIVE DUTY

Prerequisite: Military starting Occupation or Basic Training feat

You are an active duty member of a branch of the armed forces. This grants you the ability to make promotion checks and requisition checks from your branch of service (see Rank for more information). You may also add the feats from the Advanced Training section to the bonus feat list for any class you take levels in (in other words whenever a class allows you to take a bonus feat you may either take a feat listed with that class or a feat of your choice from the

Advanced Training section).

However, with the benefits of this allegiance come responsibilities. You may be reassigned to a different job (forcing you to take a feat you might not want to) and may be shipped out to any part of the galaxy and dropped into a combat zone with little or no warning.

Since the potential for characters with this allegiance to be displaced you must receive the game master's permission to take this allegiance. In many cases if one character has this allegiance everyone must have it.

Note: Depending on the nature of the campaign almost any type of force could be designated as "military" by the game master. This allegiance could be used to allow employees of MegaCorporations, members of a rebel alliance or even members of large pirate cartels to take military feats and talents. Consult with your GM about what types of organizations have the necessary level of military sophistication and advanced equipment to qualify for the active duty allegiance.

DAMAGE CONTROL *chief 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, learning her personnel and the intricacies of one of the largest, most advanced ships in the United Earth Government's 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.

Sitting down, the young woman sipped her coffee.

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..."

CHARACTERS



RESERVE DUTY

Prerequisite: Military starting Occupation or Basic Training feat

You are a member of a reserve military force such as a planetary defense force or an officer-training program. This allegiance allows your character access to military training while still allowing him to have a normal life. You may make Promotion checks as described under rank but your level is one-half for promotion purposes. While you are given military equipment for training purposes you may not effectively requisition equipment unless you are elevated to active duty (see below). Therefore you may not make requisition checks. You may also add the feats from the Advanced Training section to the bonus feat list for any class you take levels in (in other words whenever a class allows you to take a bonus feat you may either take a feat listed with that class or a feat of your choice from the Advanced Training section).

If the area you live in comes under attack you are required to report to your superiors and fight in the area's defense. Also in times of crises your character can be activated to service, requiring you to exchange this allegiance for the active duty allegiance.

You are also required to take a certain amount of time for drills and training (typically no more than one month a year). This training will not normally interfere with a

character's work or "hobbies" (such as adventuring) but occasionally during the course of the campaign it will inconvenience him. This allegiance still requires the GM's permission but is much easier for a single character to take without disrupting a non-military campaign.

Note: Depending on the nature of the campaign almost any type of force could be designated as "military" by the game master. This allegiance could be used to allow employees of MegaCorporations, member of rebel alliances or even members of large pirate cartels to take military feats and talents. Consult with your GM about what types of organizations have the necessary level of military sophistication and advanced equipment to qualify for the reserve duty allegiance.

NEW CLASSES

OPERATIONS EXPERT

The Operations officer (often called Ops) on a starship specializes in maximizing the power of the ship's engines during battle and the maintenance and repair of the ship. During battle he can divert power away from less vital ship functions to ensure the ship lives to see another day. He also directs the ship's damage control efforts to keep the hull intact. On smaller ships the Operations Expert also serves as the ship's engineer but on larger vessels these characters

work hand in hand with the engineering staff to ensure the ship always runs at peak performance.

REQUIREMENTS

To qualify to become an Operations Expert a character must meet the following criteria (the quickest path into this class is through the Smart hero basic class).

Skills: Craft (electronics) 6 ranks, Craft (mechanical) 6 ranks, Craft (structural) 6 ranks, Repair 6 ranks

CLASS INFORMATION

The following information pertains to the operations expert advanced class.

Hit Die: 1d6

Action Points: 6+ one-half character level, rounded down, every time the character gains a new level in this class.

Class Skills: The Operations Expert's class skills (and the ability for each skill) are: Computer Use (Int), Craft (electronic, mechanical, structural) (Int), Disable Device (Int), Knowledge (physical sciences, technology) (Int), Pilot (Dex) and Repair (Int).

Skill points at each level: 7 + Int. modifier (6 + Int. modifier for nonhumans)

CHARACTERS

TABLE 1-1: THE OPERATIONS EXPERT

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+0	Emergency Power +1	+0	+0
2nd	+1	+2	+2	+0	Damage Control Coordination +1	+1	+0
3rd	+2	+2	+2	+1	Bonus Feat	+1	+1
4th	+3	+2	+2	+1	Emergency Power +2	+1	+1
5th	+3	+3	+3	+1	Damage Control Coordination +2	+2	+1
6th	+4	+3	+3	+2	Bonus Feat	+2	+2
7th	+5	+4	+4	+2	Reinforce Structural Integrity	+2	+2
8th	+6	+4	+4	+2	Emergency Power +3	+3	+2
9th	+6	+4	+4	+3	Bonus Feat	+3	+3
10th	+7	+5	+5	+3	Damage Control Coordination +2	+3	+3

CLASS INFORMATION

The following information pertains to the operations expert advanced class.

Emergency Power: By funneling power from nonessential systems an operations expert may transfer power to the following areas as needed in combat: weapons, sensors or engines. The effects of transferring emergency power to each of these systems are detailed below. Use of this ability is always an attack action on the part of the operations expert. However another character can use the system in the same round if he has an action of the appropriate type available. For example an operations officer could divert emergency power to weapons in the same round that a weapons officer fires the weapon.

Weapons: Ships that use energy weapons can divert extra power to increase the damage potential of those weapons. With an attack action, the operations expert can add a number of extra dice to one ship's weapon for its next attack.

Sensors: Diverting power to sensors can either grant the ship a bonus to all ranged attack rolls equal the operations expert's emergency power bonus or twice the emergency power bonus as a bonus on all sensor-related Computer Use skill checks for the next round.

Engines: Diverting power to engines grants a ship either a movement bonus equal to 500 feet times the operations expert's emergency power bonus or a bonus to all Pilot checks equal to twice the operations expert's emergency power bonus.

Damage Control Coordination: By making damage control operations more efficient an operations expert can improve Repair skill checks and damage control rolls by the amount listed on the class table.

Reinforce Structural Integrity: The operations expert becomes so skilled at damage control that at 7th level he can instantly negate a critical hit suffered by his ship in starship combat. This ability requires the operations expert to spend an action point.

Bonus Feats: At 3rd, 6th, and 9th levels the operations expert may select a feat from the following list: Armor Proficiency (light), Armor Proficiency (medium), Builder, Educated, Gearhead, Personal Firearms Proficiency, Mastercrafter, Zero-G Training. The operations expert must meet all the prerequisites for that feat.

STARSHIP GUNNER

A marksman who likes the biggest guns he can find, the starship gunner has gravitated to the guns so big they need a starship to carry them. He likes the variety of point and click that ends with an explosion. Starship gunners are found serving starships in many capacities. Some like their combat up close and personal and serve in two-man fighters, while scores of these experts can be found in the large capital ships of the fleets of space.

REQUIREMENTS

To qualify to become a Starship Gunner a character must meet the following criteria (the quickest path into this class is through the Strong hero basic class).

Base Attack Bonus: +3

Skills: Knowledge (tactics) 3 ranks

Feats: Starship Gunnery, Teamwork (Weapons Crew)

CLASS INFORMATION

The following information pertains to the starship gunner advanced class.

Hit Die: 1d8

Action Points: 6+ one-half character level, rounded down, every time the character gains a new level in this class.

Class Skills: The Starship Gunner's class skills (and the ability for each skill) are: Computer Use (Int), Demolitions (Int), Disable Device (Int), Intimidate (Cha), Knowledge (current events, history, tactics) (Int), Pilot (Dex), Repair (Int) and Spot (Wis)

Skill points at each level: 3+Int. modifier (2+ Int. modifier for nonhumans)

CLASS FEATURES

The following features pertain to the starship gunner advanced class.

Weapon Focus: The Starship Gunner gains the Weapon Focus feat for all starship weapons at 1st level.

Weapon Specialization: At 2nd level the starship gunner gains a +2 bonus to damage with all starship weapons.

Far Shot: At 4th level the starship gunner gains the Far Shot feat for all starship weapons.

Disabling Shot: As he gains experience the starship gunner learns how to damage vital ship's systems to

CHARACTERS

TABLE 1-2: THE STARSHIP GUNNER

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+2	+0	Weapon Focus	+1	+0
2nd	+1	+2	+3	+0	Weapon Specialization	+1	+0
3rd	+2	+2	+3	+1	Bonus Feat	+2	+0
4th	+3	+2	+4	+1	Far Shot	+2	+0
5th	+3	+3	+4	+1	Disabling Shot	+3	+1
6th	+4	+3	+5	+2	Bonus Feat	+3	+1
7th	+5	+4	+5	+2	Improved Disabling Shot	+4	+1
8th	+6	+4	+6	+2	Improved Weapon Focus	+4	+1
9th	+6	+4	+6	+3	Bonus Feat	+5	+2
10th	+7	+5	+7	+3	Improved Weapon Specialization	+5	+2

reduce the ability of an enemy ship to harm his own or even to escape. The starship gunner must declare that he is attempting a disabling shot and which ship's system he is targeting before he makes his attack roll. Only one attack per round can be a Disabling Shot no matter how many attacks the starship gunner is entitled to.

He must then roll an attack roll 5 higher than what he would need to hit the target with a normal attack. Then the attack must penetrate the ship's defenses and inflict at least one point of damage. If he succeeds the results are shown below.

Any system damaged by a disabling shot remains damaged until it is repaired, requiring at least one full day and a Repair skill check (DC 15+ the starship gunner level of the character who disabled the system). It is possible for a system to be disabled more than once and all effects are cumulative.

No matter how badly damaged a system is by multiple disabling strikes, repairing the system still only takes one day, but use the highest Repair DC of all starship gunners who may have damaged the system (the reason even a completely disabled system is so easy to repair is that the damage is supposed to be superficial- the idea of a disabling strike is to capture or disable a ship WITHOUT destroying it).

Weapons: Targeting weapons reduces the damage dice potential of any weapon by –1 die for each 5 points the starship gunner rolled higher than he needed to execute the disabling shot. So if the starship gunner needed a modified 15 to hit with a disabling shot a 15-20 would reduce the weapon's damage by –1 die, 21-25 would reduce it by –2 dice and so forth.

Sensors: If sensors are targeted, the starship gunner must declare if he is targeting weapon sensors or navigational sensors. Weapon sensors give the ship a –1 penalty to all attack rolls for each 5 points by which the attack roll exceeded the minimum needed to damage the target.

Targeting navigational sensors gives a –2 penalty to all Computer Use skill checks made for active sensor scans for each 5 points by which the attack roll exceeded the minimum needed to damage the target.

Engines: Targeting the engines can either target the main engines or the maneuvering thrusters of an opposing ship. Targeting the main engines reduces the starship's movement

by –500 feet per round for each five points by which the attack roll exceeded the minimum needed to damage the target.

Targeting maneuvering thrusters gives the ship a –2 penalty on all Pilot skill checks for each 5 points by which the attack roll exceeded the minimum needed to damage the target.

Improved Disabling Shot: At 7th level the starship gunner becomes even more adept at disabling opposing ships. This ability functions as Disabling Shot except he only needs to score a regular hit for the attack to be a Disabling Shot. The starship gunner can still only make one disabling shot per round.

Improved Weapon Focus: At 8th level the starship gunner gains an additional +1 to hit with all starship weapons. This bonus stacks with that granted by Weapon Focus.

Improved Weapon Specialization: At 9th level the starship gunner gains an additional +2 damage bonus with all starship weapons. This bonus stacks with that granted by Weapon Specialization.

Bonus Feats: At 3rd, 6th and 9th levels the starship gunner gains a bonus feat from the following list: Advanced Firearms Proficiency, Armor Proficiency (light), Armor Proficiency (medium), Burst Fire, Dead Aim, Double Tap, Personal Firearms Proficiency, Point Blank Shot, Precise Shot and Quick Draw. The character must meet the prerequisites for any feat.

STARSHIP MARINE

Since ancient times, ships have carried warriors to battle in distant lands. In the future the distances will be greater, the technology powering the ships will be incomprehensible, but the nature of the men that load themselves onto ships to fight and die on distant shores remains unchanged.

REQUIREMENTS

To qualify to become a starship marine a character must meet the following criteria (the quickest path into this class is through the Tough hero basic class).

Base Attack Bonus: +2

Skills: Intimidate 3 ranks, Survival 3 ranks

Feats: Personal Firearms Proficiency, Teamwork (Marines)

CHARACTERS

CLASS INFORMATION

The following information pertains to the Starship Marine advanced class.

Hit Die: 1d10

Action Points: 6+ one-half character level, rounded down, every time the character gains a new level in this class.

Class Skills: The Starship Marine's class skills (and the ability for each skill) are: Climb (Str), Craft (structural) (Int), Demolitions (Int), Drive (Dex), Gamble (Wis), Hide (Dex), Intimidate (Cha), Jump (Str), Knowledge (current events, popular culture, tactics) (Int), Navigate (Int), Repair (Int), Spot (Wis), Survival and Tumble (Dex)

Skill points at each level: 5+Int. modifier

CLASS FEATURES

The following features pertain to the starship marine advanced class.

Beachhead: Starship marines are specially trained to be shock troops. They are the first soldiers sent into a firefight and that suits them just fine. When a marine is on the attack he gains a morale bonus to all attack and melee damage rolls equal to the bonus listed in the class table.

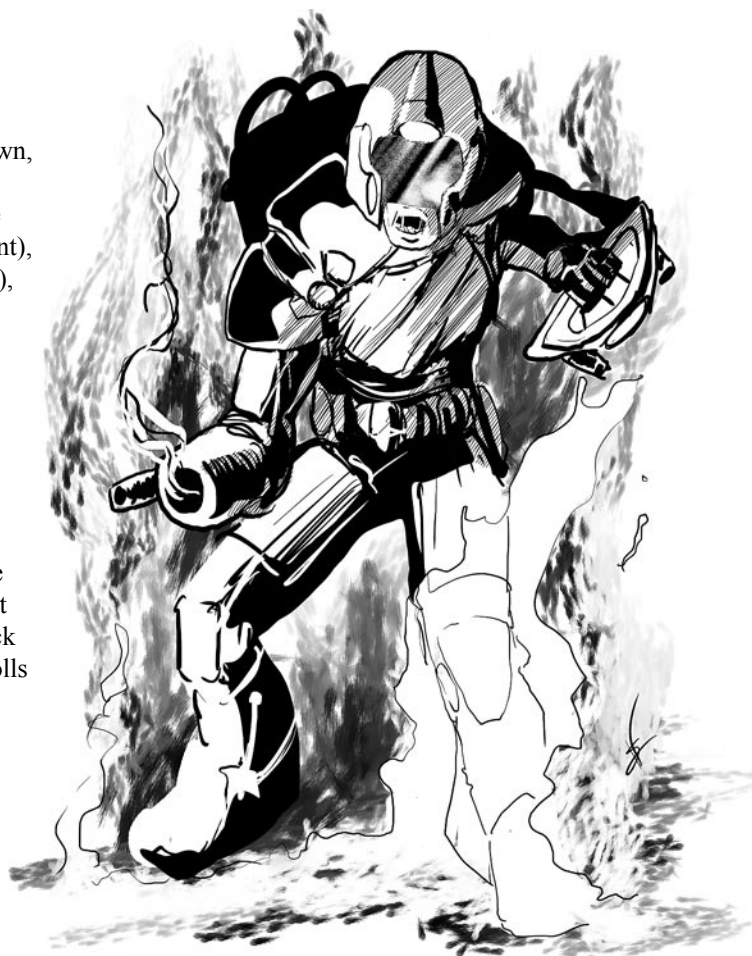
To be considered "on the attack" a marine must make at least a half-move toward his opponent or be attempting to eliminate opposition so that he can continue to gain ground. If a marine is surprised, pinned down, flanked or fighting from cover he loses this bonus.

Tough as Nails: Marines are just tough. This ability grants +1 additional hit point for each starship marine level the character gains. In addition the marine gains a bonus on Intimidate skill checks and level checks to resist intimidation equal to his Reputation bonus.

First Wave: Like Beachhead only this bonus applies to the marine's saving throws and defense bonus. Again if he is not pressing an attack he loses this bonus, as described under the beachhead ability.

Savage Assault: A marine bearing down on your position is *not* a happy sight to see. When a marine is on the attack he gains the benefit of the Frightening Presence feat even if he does not meet the prerequisites.

Semper Fi: Marines have always had a special sense of community and camaraderie with their fellow marines. This bond makes them fight that much harder on behalf of their fellows. At 10th level the marine's Teamwork bonus is



increased to +4.

Bonus Feats: Advanced Firearms Proficiency, Advanced Training (all), Armor Proficiency (heavy, light, medium, powered), Burst Fire, Cover Fire, Dodge, Drill Instructor, Mobility, Spring Attack, Tactician-Squad, Tactician-Platoon, Tactician-Company, Tactician-Battalion. The character must meet the prerequisites for any feat.

STARSHIP NAVIGATOR

An often-neglected position aboard a starship, the navigator might not be as glamorous as the helm or weapons officer positions but ships with skilled navigators know their value and treasure these officers. Starship navigators are especially

TABLE 1-3: THE STARSHIP MARINE

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+1	+1	+0	Beachhead +1	+0	+0
2nd	+1	+2	+2	+0	Tough as Nails	+1	+0
3rd	+2	+2	+2	+1	Bonus Feat	+1	+1
4th	+3	+2	+2	+1	First Wave +1	+1	+1
5th	+3	+3	+3	+1	Beachhead +2	+2	+1
6th	+4	+3	+3	+2	Bonus Feat	+2	+2
7th	+5	+4	+4	+2	First Wave +2	+2	+2
8th	+6	+4	+4	+2	Savage Assault	+3	+2
9th	+6	+4	+4	+3	Bonus Feat; Beachhead +3	+3	+3
10th	+7	+5	+5	+3	Semper Fi	+3	+3

CHARACTERS

TABLE 1-4: THE STARSHIP NAVIGATOR

Level	Base Attack Bonus	Fort Save	Ref Save	Will Save	Special	Defense Bonus	Reputation Bonus
1st	+0	+0	+1	+1	Slingshot +1	+0	+0
2nd	+1	+0	+2	+2	Sensor Expert	+1	+0
3rd	+1	+1	+2	+2	Bonus Feat; Starship Tracking	+1	+0
4th	+2	+1	+2	+2	Weapons Lock +1	+1	+0
5th	+2	+1	+3	+3	Slingshot +2	+2	+1
6th	+3	+2	+3	+3	Bonus Feat	+2	+1
7th	+3	+2	+4	+4	Sensor Mastery	+2	+1
8th	+4	+2	+4	+4	Weapons Lock +2	+3	+1
9th	+4	+3	+4	+4	Bonus Feat	+3	+2
10th	+5	+3	+5	+5	Slingshot +3	+3	+2

important at low Progress Levels where ships spend most of their time in planetary systems filled with gravity wells to slingshot from, travel times are longer and fuel is scarce. In the middle progress levels only very large ships exploring unknown space will feel the need to carry a navigator at all. However in the high progress levels this profession again becomes a necessity as starships begin to delve in dimensional travel where navigation is something of a black art. An exception to the general rule that navigators become less important at the middle progress levels is found in campaigns where hyperdrive is the main form of FTL travel. In such campaigns navigators are more valuable than gold at all progress levels.

REQUIREMENTS

To qualify to become a Starship Navigator a character must meet the following criteria (the quickest path into this class is through the Smart hero basic class).

Skills: Computer Use 6 ranks, Navigate 6 ranks

Feats: Spacer, Improved Slingshot

CLASS INFORMATION

The following information pertains to the Starship Navigator advanced class.

Hit Die: 1d8

Action Points: 6+ one-half character level, rounded down, every time the character gains a new level in this class.

Class Skills: The Starship Navigator's class skills (and the ability for each skill) are: Computer Use (Int), Concentration (Con), Knowledge (current events, physical sciences, popular culture, tactics, technology) (Int), Navigate (Int), Pilot (Dex), Repair (Int), Search (Int) and Spot (Wis)

Skill points at each level: 7+Int. modifier

CLASS FEATURES

The following features pertain to the starship navigator advanced class.

Slingshot: Navigators are undisputed masters of this simplest navigational maneuver. In combat they gain the listed bonus to Navigation checks made for slingshots and if successful add the bonus to their ship's movement (each +1 representing +1 500 ft. square of movement).

On longer voyages the navigator does not increase speed more than the standard 10% decrease in travel time (5% for the skill check and 5% for the slingshot feat). However he does gain the listed bonus to Navigate skill checks to perform the slingshot and subtracts the bonus from any refueling costs.

Sensor Expert: The first step in getting where you're going is being able to *see*. For this reason navigators are the traditional post that handles active sensor scans and navigators pride themselves on their ability to see what a less skilled operator would miss. The navigator adds his class levels to all Computer Use checks to perform active sensor scans.



CHARACTERS

Starship Tracking: The navigator is also so skilled with sensors and has such a keen eye for navigational intricacies that he can “track” starships through space on a Navigate check either by detecting the ship’s “wake” through space debris (ships displace objects in their wake just as sailing vessels do only the effects stay noticeable for far longer because of the reduced resistance in microgravity- an object tends to stay in motion once placed in motion). If a ship is moving at sublight speeds through a star system this check is 20 minus the ship’s size modifier. If the ship is moving at speeds faster than light the DC of this check is increased by +5 and if the ship is moving through deep space the DC of this check is increased by +10 (both modifiers can apply).

Weapons Lock: The navigator’s skill with sensors is a great help in ship combat. The navigator may provide the listed bonus to a number of weapons equal to his Intelligence modifier as a move action so long as the ship’s sensors are active.

Sensor Mastery: At 7th level the navigator is so skilled at sensor operation that all miss percentages due to opposing starships using cover are reduced by one-half.

Bonus Feats: At 3rd, 6th and 9th levels the starship navigator gains a feat from the following list: Armor Proficiency (light, medium), Dead Aim, Far Shot, Gearhead, Personal Firearms, Starship Gunnery and Starship Operation. The character must meet the prerequisites for any feat.

SKILLS

CRAFT (STRUCTURAL) (INT)

Trained Only

Fortifications (New Use): Characters can make fortifications to aid them in combat, from the simple (yet effective) foxhole, to the bunkers described in the Modern Core Rulebook. Hasty Fortifications can be constructed more quickly. For each five points by which the character’s skill check exceeds the DC, reduce the construction time by one hour. Vehicles in the new vehicles section can reduce many of these times to minutes.

Name	DC	Time	Effect
Dug In (Small Vehicle)	5	24 hrs.	¼ Cover
Deep	5	36 hrs.	½ Cover
Dug In (Med. Vehicle)	5	36 hrs.	¼ Cover
Deep	5	48 hrs.	½ Cover
Dug In (Lg. Vehicle)	5	48 hrs.	¼ Cover
Deep	5	72 hrs.	½ Cover
Foxhole (shallow)	5	8 hrs. per man	¼ Cover
Foxhole (deep)	5	12 hrs. per man	½ Cover

Anti-Mobility Construction: Fortifications are also useful to deny an enemy the use of its vehicles in a certain area or from a certain direction.

Name	DC	Time	Effect
Road Break (shallow)	5	12 hrs per 4 feet	Ditch (see vehicle rules for gaps)
Road Break (deep)	10	18 hrs per 4 feet	Culvert (see vehicle rules for gaps)

Mobility Construction: The opposite of anti-mobility, allows you to get where you’re going faster, land aircraft safely, and cross raging rivers. Again the right equipment (such as a Bridgelayers) can reduce construction times substantially.

Name	DC	Time	Effect
Improvised Road	15	12/hrs per mile	Wheeled vehicles move ¾ speed.
Improvised Runway	15	8 hrs.	Aircraft may land (as opposed to crash)
Short Runway	18	12 hrs.	Aircraft may land more safely
Runway	20	24 hrs.	Aircraft may land more safely
Pontoon Bridge (small river)	15	12 hrs.	Vehicles may cross at ½ speed.
Pontoon Bridge (med. river)	15	18 hrs.	Vehicles may cross at ½ speed.
Pontoon Bridge (lg. river)	15	24 hrs.	Vehicles may cross at ½ speed.
Sectional Bridge (small river)	20	18 hrs.	Vehicles may cross at full speed.
Sectional Bridge (med. river)	20	24 hrs.	Vehicles may cross at full speed.
Sectional Bridge (lg. river)	20	36 hrs.	Vehicles may cross at full speed.

PILOT (DEK)

Trained Only

Under most normal circumstances (with characters being able to take 10 on piloting skill checks), there is no need to make a skill check to land an aircraft. However, pilots conducting special operations rarely land at well lit airports during the day.

Sample Actions	DC
Carrier Deck	20
Improvised Runway	20
Short Runway	15
Normal Runway	10
Mildly Adverse Weather (Thunderstorm)	+5
Adverse Weather (High Winds, Fog, Extreme Cold)	+10
Seriously Adverse Weather (Hurricane, Blizzard)	+15
Mildly Crowded Airspace (Medium Airport)	+5
Crowded Airspace (Large Airport, Medium Airport at Peak)	+10

COMPUTER USE (INT)

The following new uses are *Trained Only*.

Send Transmission (New Use): This skill represents familiarity with communication systems, from backpack sized satellite radios to the satellites themselves.

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

CHARACTERS

there is a storm, the DC would be anywhere from 15 for an extremely heavy thunderstorm to 30 during hurricane conditions. If the PC is attempting to overcome enemy Electronic Warfare, then the DC is usually a skill vs. skill contest.

If the character rolls the DC needed exactly, then a partial, garbled message gets through.

Jamming (New Use): Most of the time, this skill is not rolled against a static DC, but rather rolled as a skill vs. skill contest against the Computer Use of the character's opponent. The character engaging in active jamming rolls her skill check first, which sets the DC for her opponent's Computer Use skill to successfully get a signal through.

Transmission Interception (New Use): If a signal is not scrambled (meaning it is a general broadcast on an unsecured frequency) then intercepting it requires a Computer Use check (DC 10). If the signal is scrambled (see below) it requires a successful skill vs. skill contest against your opponents Computer Use roll.

Transmission Triangulation (New Use): Once a transmission has been intercepted, a character with this skill may make another skill check (DC 5 higher than the check required to intercept a signal) to determine where that signal was broadcast. This grants a +5 bonus to any active sensor scan to detect the target vessel.

Scramble/Unscramble Transmission (New Use): Computer use can be used to scramble a transmission. This is done with an opposed Computer Use check between the individual sending the message and anyone attempting to intercept or unscramble it.

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 operations, she may try every round. In the case of documents coded with Cryptography, the character may try again, but disposing of the original becomes a serious security issue in such a case.

KNOWLEDGE (TACTICS) (INT)

Combat Tactics (new use): The Knowledge (tactics) skill can provide decisive advantages over an opponent in combat. Once per round as a move action a character may make a Knowledge (tactics) skill check. If your opponent does not have ranks in the Knowledge (tactics) skill this check has a DC of 10. Otherwise it is a skill vs. skill contest against the Knowledge (tactics) skill of the leader of the opposing force. The winner of this contest gains a bonus to either attack or initiative checks equal to his Intelligence modifier. If a bonus to initiative is selected the character moves up an amount equal to the bonus in the initiative order.

Normally the results of this check apply only to the character making the skill check. However the Tactician feat can allow the results of this check to apply to others as well.

NAVIGATE (WIS)

Slingshot (new use): Large gravity wells (such as stars, planets and large moons) are abundant in star systems and the clever navigator uses these to save fuel and reach his destination faster. On a successful Navigate check (DC 15) the character reaches his destination in 5% less time and the cost of refueling his ship is reduced by -1 Wealth.

However moving close to gravity wells can cause a ship to expend more fuel if it is done incorrectly. If the skill check to slingshot is failed then the trip takes 10% longer and the cost to refuel the ship is increased by +2 the next time it must refuel.

Combat Slingshot (new use): If space combat takes place near a large gravity well, a pilot can also attempt to use it to his advantage. As an attack action the character within range of a gravity well may make a Navigate skill check. If he succeeds he increases his ship's combat speed by an amount based on the strength of the gravity well he is near. If he fails he is snared in that gravity well and will have to break away. See the starship combat section for a complete explanation of making combat slingshots and using gravity wells in combat.

SPOT (WIS)

The following new uses are *Trained Only*.

Air Traffic Control (new use): When making Spot checks for radar operation you can assist a craft in taking off or landing. The base DC is 15 and grants a +2 circumstance bonus to Pilot checks. For every 5 points by which your roll exceeds this DC an additional +1 bonus is granted. This use of the Spot skill may not be used untrained.

Reconnaissance (new use): Knowing where your enemy is, in what numbers, how he is defended, and where he is going are crucial to formation of a plan for attack or defense. Besides providing the information above, a successful reconnaissance skill check will grant the following bonus to Knowledge (tactics) if brought the attention of a friendly force within 24 hours.

Check	Bonus
15	+2
20	+3
25	+4

SURVIVAL (WIS)

The following new use is *Trained Only*

Signaling (new use): This skill also covers non-electronic methods of communication, such as semaphore, and can allow a character to perform the Air Traffic Control skill without a radio by using lights, flares, flags, and other improvised methods. Characters without the Signaling feat take a -4 penalty to Survival checks for Signaling.

CHARACTERS

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 crackled as Sarita'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.

FEATS

ANTITHESIS

You have a deep hatred of those loyal to one Allegiance.

Prerequisite: Enemy (same group), Base Attack Bonus 9+

Effect: When you are combating your antithesis you gain an additional +2 morale bonus to damage and skill checks when combating your enemy (this bonus stacks with that granted by the Enemy feat for a total bonus of +4). You will not willingly deal with your antithesis on friendly terms and when you are forced to do so take a -2 penalty to all Charisma-based skill checks except Intimidate (this penalty stacks with that granted by the Enemy feat for a total penalty of -4).

Special: You may only take this feat once (you may have many enemies but only one antithesis).

BARREL ROLL

You have learned that by rolling and flipping your ship in combat you can make it even harder to hit.

Prerequisite: Evasive Maneuvers

Effect: For every -1 penalty you take to hit with Evasive Maneuvers you gain a +1 ½ bonus to Defense (rounded down for a total bonus of +3 Defense for each -2 to hit).

Bonus: This feat is a bonus feat for Fast heroes and Dogfighters.

COVER FIRE

You are highly skilled at providing cover fire.

Prerequisite: Teamwork

Effect: When using a ranged weapon capable of firing on autofire with which you are proficient you can grant allies within one range increment a +2 Defense bonus. This expends as many rounds as making an attack with the weapon on autofire would be.

Bonus: This feat is a bonus feat for Dedicated heroes.

DESK JOCKEY

You might not have seen a lot of combat (yet) but you file one mean SFU-69/KY in triplicate blind CC'd to 3rd parties on a strictly "need to know" basis.

Effect: You gain a +4 bonus on Requisition checks.

Bonus: This feat is a bonus feat for Smart heroes.

DRILL INSTRUCTOR

The character is adept at winning friends and influencing people. All who meet him, especially those who study under his gentle tutelage, will love him.

Skills: Intimidate becomes a permanent class skill for this character. The character gains a +2 bonus to all intimidate skill checks.

Special: Units under your command require half the tour of duty and starship battles survived to improve to the next level of crew quality.

ELECTRONIC WARFARE

You are an expert in the most sophisticated modern warfare techniques.

Effect: You gain a +4 bonus with any of the following uses of the Computer Use skill: Jamming, Signal Interception, Signal Triangulation or Signal Scrambling/Unscrambling.

Bonus: This feat is a bonus feat for Smart heroes.

ENEMY (ONE ALLEGIANCE)

You have one Allegiance that you detest.

Effect: You gain a +2 morale bonus to damage and skill checks when combating your enemy. You will not willingly deal with your enemy on friendly terms and when you are forced to do so take a -2 penalty to all Charisma-based skill checks except Intimidate.

EVASIVE MANEUVERS

You are a master of aerial acrobatics that make any ship you pilot a hard target to latch onto in a dogfight.

CHARACTERS

Prerequisite: Pilot 5 ranks, Starship Operation (any type)

Effect: When piloting a craft you have the Starship Operation feat for you may take a –1 penalty to attack rolls in return for raising the Defense of the craft you are piloting by +1. If this feat is used on a large ship all on board take a –1 penalty to their attack rolls even if those rolls are for personal combat (such as a boarding action or repelling boarders).

The GM may also rule that use of Evasive Maneuvers requires a Concentration skill check (DC 20) to avoid this penalty applying to any complex skill check such as a Repair skill check to a delicate system or a Treat Injury check.

Special: This feat may not be used by fighters in a wing formation (they are too close together). However on a free action one or more the craft may break formation in order to use this feat.

Bonus: This feat is a bonus feat for Fast heroes and Dogfighters.

FAST TRACK

You have gained the notice of your superiors and been marked for rapid promotion.

Effect: You may immediately make a Promotion check upon taking this feat. You make all future Promotion checks with a +4 bonus.

Normal: Characters normally make a Promotion check only when they gain a level.

Bonus: This feat is a bonus feat for Charismatic heroes and Field Officers.

FIGHTER ESCORT

One of the key advantages for fighters is to protect larger, more valuable craft in combat. You have received special training allowing you to perform this task effectively.

Prerequisite: Teamwork

Effect: When your fighter group forms a Wing (4 fighters in a single square in close formation) that Wing may provide cover for a larger craft as long as they remain adjacent to that craft (in one of the squares bordering the craft they are escorting).

Each Wing provides a +1 Defense bonus to the craft it is protecting. Craft flying escort duty may not take any actions themselves except as noted below or move more than one square away from the craft they are protecting (this makes flying escort duty extremely dangerous and is one reason among many that the Army Air Corps suffered more casualties than any other branch of service during the Second World War). However they do provide cover for each other normally.

However each wing is treated as a point defense weapon and may attack if the starship they are protecting would be entitled to make an attack of opportunity with its point defense weapons (such as when a starship moves out of a threatened square).

Fighter escorts also grant cover against missiles in the same fashion as point defense weapons.

The maximum number of Wings a craft may have escorting it is a function of that ship's size as follows: Light 4 Wings, Mediumweight 8 wings, Heavy 12 Wings, Superheavy 16 Wings.

Bonus: This feat is a bonus feat for Dedicated heroes.

FORMATION FLYING

As long as aircraft have been shooting each other down pilots have known the advantages of flying in formation with one craft covering the others.

Prerequisite: Teamwork

Effect: Since each craft in your Wing flies closer together and with greater precision you gain a +2 bonus for each craft in your wing that possesses this feat.

Bonus: This feat is a bonus feat for Dedicated heroes and Dogfighters.

IMPROVED SLINGSHOT

You are especially skilled at using gravity wells to your advantage.

Prerequisite: Navigate 5 ranks

Effect: When you successfully make a Navigate check to slingshot you gain an additional +1 bonus to your speed beyond the strength of the gravity well. You also gain a +2 bonus on Navigate checks to make slingshot attempts and a +2 bonus on Pilot checks to escape from a gravity well if ensnared.

Bonus: This feat is a bonus feat for Dedicated heroes and Dogfighters.

LEADERSHIP

You are able to engender personal loyalty among those who follow you.

Prerequisite: 6th Level

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

TACTICIAN-SQUAD

You are a skilled tactician capable of leading a small group effectively in battle.

Prerequisite: Int 13+, Cha 13+, Teamwork

Effect: Normally when you make a Knowledge (tactics) check the effects apply only to you. However this feat allows the effects of the Knowledge (tactics) check to benefit a number of allies equal to twice your Charisma modifier.

Special: This feat is highly valued in military groups granting a +2 bonus on all Promotion checks.

CHARACTERS

TACTICIAN-PLATOON

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, Knowledge (tactics) 8 Ranks.

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

TACTICIAN-COMPANY

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

Prerequisites: Cha 15+, Tactician- Platoon, Knowledge (tactics) 10 Ranks.

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

TACTICIAN-BATTALION

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

Prerequisites: Int 15+, Tactician- Company, Knowledge (tactics) 12 Ranks.

Effect: A character with this feat grants a bonus equal to his Intelligence modifier to a number of units equal to 8 times his Charisma modifier. This bonus stacks with the bonuses granted to specific units by individual commanders.

TEAMWORK (SPECIFIC TEAM)

You have extensive training in small unit tactics and can coordinate attacks with great precision.

Prerequisite: Allegiance (specific team)

Effect: When working with others of your team (those with a Teamwork feat for the same group) you gain a +2 bonus to attack and skill checks (this is in addition to any bonus you might gain if a member of your team takes the aid another action).

Characters with this feat may also communicate simple information using hand signals.

Special: You gain a +2 bonus on Promotion checks (team players are highly prized by military organizations).

Bonus: This feat is a bonus feat for Dedicated heroes.

WINGMAN

You are a pilot's best friend. The effect of this feat on fighter tactics is to make wings of two fighters more efficient than larger wings. This makes Wingmen highly prized by carrier commanders as well since he can field twice as many wings (pilots without this feat normally prefer wings of four fighters when possible).

Prerequisite: Teamwork, Formation Flying

Effect: You grant your wing commander a +4 Defense bonus. In addition you are considered a point defense weapon and may make attacks of opportunity or provide concealment from missile fire for your wing commander.

Finally in wings of only two craft (you and your wing commander) you fly as one allowing the use of the Evasive Maneuvers feat as long as both craft take the same attack penalty.

Bonus: This feat is a bonus feat for Dedicated heroes and Dogfighters.

ADVANCED TRAINING

This section represents training only available to players who are members of military or paramilitary organizations. An Allegiance to any organization of sufficient resources and military sophistication may grant access to these feats at the game master's discretion.

ASSAULT TRAINING

You have received specialized training in the boarding and seizing of enemy spacecraft, space stations and planetary bases.

Effect: You gain a +2 bonus on all Tumble checks for boarding purposes (see the Skills section for more information). You also gain a +1 morale bonus to attack rolls for one minute after a boarding action begins.

Bonus: This feat is a bonus feat for characters with the Active Duty or Reserve Duty Allegiances regardless of character class.

HIGH-G ASSAULT TRAINING

You have received advanced training in combat in high-G environments.

Prerequisite: Str 13+

Effect: You suffer no movement penalty in a high-G environment. You suffer no penalty to ranged attack rolls in high-G environments. You still suffer a -2 penalty to melee attack rolls but gain a +2 damage bonus to melee attacks. In addition in a high-G environment you gain a +2 bonus to all Knowledge (tactics) skill checks.

Bonus: This feat is a bonus feat for characters with the Active Duty or Reserve Duty Allegiances regardless of character class.

LOW-G ASSAULT TRAINING

You have received advanced training in combat in low-G environments.

Prerequisite: Zero-G Training

Effect: When in a low-G environment your movement bonus is increased by an additional +5 feet per round (for a total bonus of +10 feet) in addition you gain a +1 bonus on attack rolls and a +2 bonus on all Knowledge (tactics) skill checks.

Bonus: This feat is a bonus feat for characters with the

CHARACTERS

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 last battle of 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 and 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... or die no one will know what happened here. 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...

Active Duty or Reserve Duty Allegiances regardless of character class.

NCO SCHOOL

You have both training and experience to command others.

Prerequisite: Knowledge (tactics) 5 ranks, Teamwork (any military group), Rank E-5 or higher

Effect: You gain a +2 bonus to all Knowledge (tactics) skill checks. In addition if you possess the Tactician-Squad feat your Charisma modifier is increased by +2 as well for the purposes of that feat.

Special: Upon attaining rank E-5 you may gain this feat for free as long as you meet the prerequisites.

OFFICER CANDIDATE SCHOOL

You have graduated from an elite officer-training program allowing you to begin your military career as an officer.

Prerequisite: Int 13+, Cha 13+, Teamwork (any military group)

Effect: Knowledge (tactics) is added to your permanent class skill list. You gain a +2 bonus on all Knowledge (tactics) skill checks. In addition if you possess any Tactician feat your Charisma modifier is increased by +2 as well for the purposes of that feat.

Special: This feat raises your rank to O-1 automatically. If you are promoted to O-1 in the line of duty you may gain this as a free feat as long as you meet the prerequisites.

HENOMORPH ASSAULT TRAINING

You have received advanced training in meeting new life forms and new civilizations... and killing them.

Effect: You gain a +2 damage bonus and a +2 bonus on all Knowledge (tactics) skill checks when fighting someone of another race than yours.

Bonus: This feat is a bonus feat for characters with the Active Duty or Reserve Duty Allegiances regardless of character class.

ZERO-G ASSAULT TRAINING

You have received advanced training in microgravity environments.

Prerequisite: Zero-G Training

Effect: When in a zero-G environment you gain a fly speed 10 feet per round higher than your base land speed or base flight speed. In addition you gain a +1 competence bonus to attack rolls and a +2 bonus on all Knowledge (tactics) skill checks.

Bonus: This feat is a bonus feat for characters with the Active Duty or Reserve Duty Allegiances regardless of character class.

RANK

Rank is an important part of any military science fiction campaign. Not only does rank offer another avenue for character advancement it also gives a character a greater ability to requisition equipment from the military. With the perks come more responsibilities and a character who advances in rank might find himself with more responsibility than he wants. Since science fiction military organizations are almost always modeled on naval forces two branches of service are detailed here: the Star Navy and the Star Marines.

RANK AND THE GAME

Rank must be handled with utmost care when it is introduced into any roleplaying game. Two factors must be balanced at all times when dealing with rank: the realism of the game and the fun of the game.

The first thing to consider is that rank is not quite as linear

CHARACTERS

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 the 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.

as people outside the military believe it to be. While it is *technically* true that a 2nd Lieutenant ten minutes out of OCS outranks a Top Sergeant with 30 years combat experience, when the blaster bolts start flying who would you listen to? Further in the chain of command of most units a very experienced NCO is second in the chain of command to the highest-ranking officer.

With that bit of reality out of the way, remember that the enjoyment of the game must always be of paramount importance. No one shows up at their weekly game to be ordered around and micromanaged by someone else whether PC or NPC. We get enough of that in our weekly lives.

Remember that science fiction games are rife with characters that belong to supposedly military organizations yet violate the chain of command on a weekly basis and somehow get away with only a token slap on the wrist. When officers prove incompetent civilians take over and

save the lives of marines under fire. And of course in one of the most storied science fiction franchises of all time many of the high-ranking officers seem prone to insanity.

So remember to use rank in ways that enhance the game rather than detract from it and these rules will provide you with the tools to add a new dimension of enjoyment to your game.

PROMOTION

The basic mechanic for gaining rank is the Promotion Check. Promotion checks are made whenever a character gains a level and compared to the Promotion DC of the rank above the character's current rank. If the adjusted roll exceeds the DC then the character will be promoted to his new rank immediately upon returning to friendly territory or his base of operations. If a character is on a vessel with a higher-ranking officer present however, promotion can

CHARACTERS

happen instantly (this is a great opportunity for role playing with one PC conducting the promotion ceremony for one of his fellow PCs).

Promotion checks are made as follows:

Promotion Check= 1d20 + **Charisma modifier** + ½ **Level** + **Miscellaneous bonus**

Each rank is detailed with the following information.

Rank: The designation of the rank itself. Enlisted ranks are rated E-1 through E-10, Warrant Officer ranks WO-1 through WO-5 and Officer ranks from O-1 through O-10.

Title: What a person of that rank is called in his branch of service.

Promotion DC: The difficulty of the Promotion check required to gain that rank.

Requisition Modifier: The modifier to the character's requisition checks from his military organization.

Pay grade: The bonus to the character's wealth granted by his new rank. When a character goes from one rank to the next he only gains the difference between the two bonuses. The total pay grade is simply there to make the game master's life easier when generating NPCs

STAR MARINE RANKS

ENLISTED RANKS

Rank	Title	Promotion DC	Requisition Modifier	Pay Grade
E-1	Private	---	+0	+1
E-2	Private 1st Class	15	+1	+2
E-3	Lance Corporal	16	+2	+3
E-4	Corporal	17	+4	+4
E-5	Sergeant	20	+6	+5
E-6	Staff Sergeant	21	+8	+6
E-7	Gunnery Sergeant	22	+10	+7
E-8	Master Sergeant	23	+12	+8
E-9	Top Sergeant	25	+14	+9
E-10	Sergeant Major	28	+16	+10

WARRANT OFFICER RANKS

(Requires 10 ranks in two military-related skills)

Rank	Title	Promotion DC	Requisition Modifier	Pay Grade
WO-1	Warrant Officer 1	20	+6	+6
WO-2	Warrant Officer 2	22	+9	+7
WO-3	Warrant Officer 3	24	+12	+8
WO-4	Warrant Officer 4	26	+15	+9
WO-5	Warrant Officer 5	28	+18	+10

OFFICER RANKS

(Requires Officer Candidate School)

Rank	Title	Promotion DC	Requisition Modifier	Pay Grade
O-1	2nd Lieutenant	20	+6	+6
O-2	1st Lieutenant	22	+9	+8
O-3	Captain	24	+12	+10
O-4	Major	26	+15	+12
O-5	Lieutenant Colonel	28	+18	+14
O-6	Colonel	30	+21	+16
O-7	Brigadier General	32	+24	+18
O-8	Major General	34	+27	+20
O-9	Lieutenant General	36	+30	+22
O-10	General	38	+33	+24

STAR NAVY RANKS

ENLISTED RANKS

Rank	Title	Promotion DC	Requisition Modifier	Pay Grade
E-1	Recruit	---	+0	+1
E-2	Spacer 1st Class	15	+1	+2
E-3	Spacer	16	+2	+3
E-4	Petty Officer 3rd Class	17	+4	+4
E-5	Petty Officer 2nd Class	20	+6	+5
E-6	Petty Officer 1st Class	21	+8	+6
E-7	Chief Petty Officer	22	+10	+7
E-8	Senior CPO	23	+12	+8
E-9	Master CPO	25	+14	+9
E-10	Fleet CPO	28	+16	+10

WARRANT OFFICER RANKS

(Requires 10 ranks in two military-related skills)

Rank	Title	Promotion DC	Requisition Modifier	Pay Grade
WO-1	Warrant Officer 1	20	+6	+6
WO-2	Warrant Officer 2	22	+9	+7
WO-3	Warrant Officer 3	24	+12	+8
WO-4	Warrant Officer 4	26	+15	+9
WO-5	Warrant Officer 5	28	+18	+10

OFFICER RANKS

(Requires Officer Candidate School)

Rank	Title	Promotion DC	Requisition Modifier	Pay Grade
O-1	Ensign	20	+6	+6
O-2	Lieutenant Junior Grade	22	+9	+8
O-3	Lieutenant	24	+12	+10
O-4	Lieutenant Commander	26	+15	+12
O-5	Commander	28	+18	+14
O-6	Captain	30	+21	+16
O-7	Commodore	32	+24	+18
O-8	Rear Admiral	34	+27	+20
O-9	Vice Admiral	36	+30	+22
O-10	Fleet Admiral	38	+33	+24

CHAPTER 2: STARSHIP COMBAT

ADMIRAL ANTILLES didn't go straight to his mess though, he went to Main 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, the lives lost during the engine trials aboard this very vessel, the success of which had earned him a place among 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.

CREW

The following rules build on those found in the future core rules. These rules provide more levels of crew experience and a greater variety of crew types to enrich your adventures aboard a starship.

ORDERS

Crew might have similar abilities to a player character, however they are not heroic characters and require leadership to act at full effectiveness. In order to take an action a crew must be given an order by a PC or "named" NPC as an attack action.

This order could be to make a skill check, an attack roll or use any one of the unit's available feats based on crew quality. If a unit is forced to act on its own (because all PCs or named NPCs are dead or incapacitated) it functions as if its quality were reduced by two steps (the exception to this is Legendary crew units which are capable of operating independently with their full effectiveness).

Once a unit is given an order it will continue to perform that order to its logical conclusion without requiring another order. For example a gunnery crew ordered to attack an enemy starship would continue to attack until all enemy starships were eliminated. A crew unit ordered to scan for mines would scan until either ordered to do something else or the ship had cleared the minefield.

One exception to this rule is a unit that is attacked or otherwise suffers damage resulting in a morale hit. When a

unit suffers damage it will do *nothing* until given an order by a superior officer (Legendary units cannot suffer morale hits and are thus never affected by this).

Skill Check Modifier: This is used to modify all skill checks made by the crew. The type of crew in question determines whether they use this whole bonus or ½ this bonus (see crew types below).

Pilot's Class Defense Bonus: This is the base defense of any ship modified by a pilot of this crew quality (modified by the ship's size and the pilot's Dexterity modifier). If the crew unit is not listed as having a specialization in piloting it moves two steps up the table to determine the Defense bonus granted when it is pressed into service.

Ability Modifiers: This is the best ability modifier for the crew type. Which ability this applies to varies according to the type of crew.

When an ability modifier is needed for any other ability move two steps up the table for the secondary ability and three steps up for all other abilities.

If Intelligence is one of the modified ability scores an additional skill may be selected when the unit is hired and added to the unit skill list (the skills the unit uses at full value).

Attack Bonus: This is the attack bonus of the unit in question. Only certain combat units use this full value. Other crew types will have a value two steps down the table from their base crew quality (for example an expert medical unit that was attacked could defend itself but as an Untrained combat unit). See Crew Combat below for more information on this.

STARSHIP COMBAT

TABLE 2-1: CREW QUALITY

Crew Quality	Skill Check Modifier	Pilot's Class Defense Bonus	Ability Modifiers	Attack Bonus	Hits Restored	Modifier to Starship's Purchase DC
Untrained	+0/-4*	+1	+0	-4*	0	-2
Trained	+4	+3	+2	+2	1	0
Expert	+8	+5	+4	+4	2	+2
Ace	+12	+7	+6	+8/+3	3	+4
Legendary	+16	+9	+8	+10/+5	6	**

* Pilot□

Starship Gunnery feats.

** Legendary crews cannot be hired for any price.

Hits Restored: This is the number of hits a medical unit may restore (see crew combat for more information on hits and the restoring of hits to crew units).

Modifier to Starship's Purchase DC: These increases and decreases in a starship's purchase price are applied individually for each type of crew the purchaser wishes the ship to have. So a commander that wished to purchase a ship with Expert Helm, Marine and Science crews would add +6 to the ship's purchase DC.

CREW QUALITY

UNTRAINED

These individuals are more likely pressed into service during an emergency situation than they are to be "hired".

TRAINED

The standard ship's crew, these individuals are composed of dedicated well-trained members of the basic classes.

EXPERT

These exceptional individuals are often members of starship advanced classes such as the Starship Gunner or Operations Expert.

ACE

Ace crewmen are extremely rare and are typically found aboard ships that have seen a lot of action such as during wartime.

LEGENDARY

These crews are whispered of rather than spoken of openly. They may not be bought and serve out of loyalty rather than money. If the leader of a Legendary crew is killed they simply disperse joining (or commanding) ships of their own.

Legendary crews are unique in several ways that serve to make these units some of the most valuable tools in a commander's arsenal.

First a unit does not need to be micromanaged in order to operate effectively. Legendary units can take action on their own and not lose any effectiveness, freeing their officers to watch over less experienced crew. Legendary combat units take no morale hits at all and thus seem almost superhuman in the amount of damage they can absorb.

Note: The astute observer will notice that some of the more experienced crew types below are granted class abilities. However they are *not* heroic characters and do not receive any class abilities beyond those listed.

CREW TYPES

HELM

Helm crews use their full skill modifier for Computer Use, Pilot and Navigate checks. They use the full Pilot's Defense bonus. Their primary ability is Dexterity and their secondary ability is Intelligence.

Trained Helm crews have the Starship Operation feat (any ship size larger than ultralight).

Expert Helm crews have the Evasive Maneuvers feat.

Ace Helm crews have the Starship Dodge and Starship Mobility feats.

Legendary Helm crews have the Starship Battle Run feat.

SCIENCE

Science crews use their full skill modifier for Computer Use, Knowledge (all) and Research skill checks. Their primary ability is Intelligence and their secondary ability is Wisdom.

Trained Science crews have the Educated feat (representing the unit's primary specialty).

Expert Science crews have the Gearhead feat.

Ace Science crews have the Salvage feat.

Legendary Science crews have the Robomancer and Technophile class *Technosavant* abilities.

MEDICAL

Medical crews use their full skill modifier for Craft (pharmaceutical), Knowledge (behavioral sciences) and Treat Injury skill checks. Their primary ability is Wisdom and their secondary ability is Intelligence.

Trained Medical crews have the Medical Expert feat.

Expert Medical crews have the Surgery feat.

Ace Medical crews have the Expert Healer and Medical Mastery *Field Medic* class abilities.

Legendary Medical crews have the Xenomedic feat.

FLIGHT

Flight Crews use their full skill modifier for Computer Use, Pilot and Spot skill checks. They use the full Pilot's

STARSHIP COMBAT

Defense bonus. Their primary ability is Intelligence and their secondary ability is Intelligence.

Trained Flight crews have the Starship Operation (ultralight) feat.

Expert Flight crews have the Teamwork (Flight Crew) feat.

Ace Flight crews have the Formation Flying and Fighter Escort feats.

Legendary Flight crews have the Wingman feat.

GUNNERY

Gunnery crews use their full skill modifier for Knowledge (tactics), Repair and Spot skill checks. They use the full combat base attack bonus. Their primary ability is Dexterity and their secondary ability is Wisdom.

Trained Gunnery crews have the Starship Gunnery feat.

Expert Gunnery crews have the Teamwork (Gunnery Crew) feat.

Ace Gunnery crews have the Weapon Focus and Weapon Specialization (Starship Gunnery) feat.

Legendary Gunnery crews have the Far Shot feat and Disabling Shot *Starship Gunner* class ability.

MARINES

Marine crews use their full skill for Craft (structural), Intimidate and Knowledge (tactics) skill checks. They use the full combat base attack bonus. Their primary ability is Dexterity and their secondary ability is Strength.

Trained Marine crews have the Personal Firearms and Armor Proficiency (light) feats.

Expert Marine crews have the Teamwork (Marines) feat granting them a +2 bonus to crew combat rolls (see below).

Ace Marine crews have the Assault Training feat.

Legendary Marine crews have the Semper Fi class ability granting them a +4 bonus to crew combat rolls.

OPERATIONS

Operations crews use their full skill for Craft (all), Computer Use and Repair skill checks. Their primary ability is Intelligence and their secondary ability is Dexterity.

Trained Operations crews have the Gearhead feat.

Expert Operations crews have the Teamwork (Damage Control Team) feat

Ace Operations crews have the Emergency Power +1 and Damage Control Coordination +1 class abilities

Legendary Operations crews have the Emergency Power +2 class ability.

SMALL UNIT COMBAT

The d20 System is an excellent system for handling combat engagements involving less than twenty people. However, what does the GM do when a combat situation involves hundreds of people? There are a number of strategies that wily GMs have adopted over the years to handle this, usually involving just a tight focus on the PCs and their actions



during a larger battle. However, with the Battlefield Unit Combat System (BUCS), the GM now has the tools to run this size of battle like any other battle.

In BUCS, the *Unit* is the base size for independent action. A unit is usually around ten individuals, the size of a modern military squad. If individual characters wish to participate in a BUCS battle, they must join a unit (see *Joining a Unit* below). Units undertake actions the same way player characters do: they have a move action and an attack action each round, they may make skill checks, and so forth. What actions a unit can undertake, and how well it can undertake them, are governed by the unit's crew type (see *Crew* above).

UNIT QUALITY

A combat unit's quality is determined by its base attack bonus (see the *Crew Quality* table above).

UNIT VS. UNIT

Many times, the actions a unit wishes to take will be opposed directly by units on the other side. You wish to find your enemy through aerial reconnaissance, while your opponent seeks to hide valuable targets through camouflage. In these cases, each unit rolls a d20, modified by unit quality, and the higher total wins.

STARSHIP COMBAT

UNIT COMBAT

Often, units will fight one another. This is what all combat eventually comes down to, man vs. man. This is done like a skill vs. skill contest, with each unit totaling all modifiers to its base attack bonus and rolling a d20. The winning unit inflicts damage on their opponents, at the rate of 1 hit for each 5 points by which it wins the round.

Unit Damage: Whenever units 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.

Morale Hits: Morale hits are temporary losses of unit quality due to shock and confusion. Morale hits are “healed” by rest although characters with the Rally ability (see the Classes chapter for more information on this ability) are able to heal morale hits in combat. As long as a unit is under stress one Morale hit can never be healed (the last Morale hit may only be healed by rest and relaxation or R&R). Each day of R&R (rest and relaxation) a unit receives restores one Morale hit.

Casualty Hits: During the heat of battle, crew casualties are treated like Morale hits, except that the Rally ability cannot restore quality loss due to casualties. After a battle, medical units will be able to save some crewmen, restoring quality lost to casualty hits. Any casualties that cannot be restored within twenty-four hours after a battle are dead. The unit that suffers deaths is permanently reduced to its new level of quality, after which it can begin gaining experience normally (representing new recruits taking the place of fallen soldiers who are less experienced).

UNIT COMBAT RULES: SPECIAL CASES

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 narrow street is pinned down. If your opponent is pinned down, you gain a +2 on all unit combat rolls. If your opponent is pinned down because it is fighting from a doorway, 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. A unit that is Dug In may only be Pinned Down if it is being attacked from multiple directions.

MOMENTUM

If a unit wins round after round, it will seem invincible to its opponent, regardless of the relative quality of the two units. Each round a unit wins in a row gives it a cumulative +1 bonus in the next round. So a unit that wins three rounds, gains a +3 bonus. However, if that unit loses a single round, it loses this bonus, and its opponent gains a +1.

DAMAGING AND DESTROYING UNITS

Each hit inflicted on a unit degrades its quality by one step. This reflects either that unit’s decreased willingness to fight (in the case of Morale damage), or its dwindling numbers (in the case of Casualty hits). If a unit is reduced below Raw status, its fate is determined by what type of hit that last bit of 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 bit of damage, the unit is destroyed utterly and is lost.

DUG IN

Units that are dug in (using natural cover, foxholes, sandbags, razor wire, and other constructions for cover) never suffer penalties for Momentum or Driven Back. However, these units may not benefit from these conditions either. Units that are dug in also gain a +2 bonus on all crew combat rolls.

Strength in numbers: When units work together for a common goal, they gain a +2 bonus on all skill checks for each unit over the first. Only units that have skills in common may work together.

OUTNUMBERED

Units may work together in combat as well. When one side outnumbers the other, use the bonus on the table below.

Factor	Modifier
Outnumbered	+2
X2	+4
X3	+6
X4 or more	+8

SURPRISE

Surprise is a dangerous weapon in unit combat. Any unit may make a Hide check (modified by Unit Quality) to attempt a surprise attack. This check is opposed by a Spot check (modified by Unit Quality). A unit that achieves surprise begins combat with a +2 Momentum bonus (meaning if it wins the first round this bonus will increase to +3 the next round and so forth).

MOBILE

A mobile unit is much faster than its opponent. This usually results from one unit being mechanized while its opponent is on foot, or a mechanized unit fighting an Armor unit. For each step of mobility in a unit’s favor (Foot, Mechanized, Armor), the unit gains a +2 bonus to combat rolls. Also, a unit with a mobility advantage may never be Pinned Down due to numbers, unless the unit is fighting in cramped quarters (note that the Starship Construction Manual will explain how to enhance the mobility of marine forces but for now the game master can either assume all marines have a mobility of Foot or grant the characters more mobile units at his discretion).

STARSHIP COMBAT

HEALING UNIT DAMAGE

There are two different kinds of damage that may be inflicted on a unit: Morale and Casualty. Each of these two types of damage are healed in different ways. Morale damage is healed by leave time, or facilities that serve to allow the unit to unwind on board ship, or at a base, such as Gymnasiums, Arboretums, Arcades and so forth. This damage will recover with time, but if a unit must fight several battles in a row, it will continue to feel the effects of fatigue for some time. A medical crew, augmented by medical facilities, heals Casualty damage. These hits are repaired immediately after combat. Any casualty hits beyond the ability of a medical crew to heal are marked off permanently and counted as unit quality level decrease.

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 (Special Forces, Strategist) all allow the PCs to lead troops into battle. What this does is allow a PC or “named” NPC to join a 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 Unit vs. Unit contests. If a Crew Unit commanded by a PC or named NPC suffers damage, the character does as well. For each hit of actual (Casualty) damage suffered by the unit (PCs are immune to Morale hits), the character suffers 3d6 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.

REQUISITIONING UNITS

Characters belonging to military or paramilitary organizations can Requisition units from their organization. The DC to Requisition a unit is: 10+ the unit’s modifier to a ship’s cost x5. Thus, Requisitioning an Ace Sciences unit for the exploration of an uncharted nebula would require a Requisition DC of 30. If a character attempts to Requisition more units than he can effectively command himself (through class or feat abilities), each unit Requisitioned beyond that will take a cumulative –2 penalty (-2 for the first unit, -4 for the second unit, and so forth). The military will understand a character taking additional forces to act as a reserve, but will want forces to go where they can do the most good as well.

COMBAT EXAMPLE

During a battle with the pirate cruiser *Guillotine* they are caught with grapples and ordered to surrender. When the order is ignored the captain of the Q-ship *Lantern* orders his marines to board the *Guillotine* and capture it. This example combat looks at one engagement during that mission.

The *Lantern*’s marine units have seen some action in similar pirate skirmishes and are considered Expert Marines. The Pirates have been even more busy boarding ships to

plunder their cargo holds and are Ace Marines.

The *Lantern*’s troops come into a hallway and are immediately hit with a barrage of weapons fire from the defending pirates. Both units make attack rolls, the marines from the *Lantern* roll a natural 20+4 for a modified 24. The pirates roll a 14+8 for a modified 22.

The marines take the first round inflicting a Morale hit on the pirates, reducing them to Expert quality and gaining a momentum bonus of +1.

Round two the *Lantern*’s marines roll a 16+4+1 (for momentum) for a modified 20 and the pirates roll 10+4 (they are effectively Expert now) for a modified 14.

The marines win another round by more than five, inflicting two hits on the pirate crew (one Casualty and one Morale). The pirate crew is now effectively Untrained as some of their members drop dead from well-placed blaster fire while others turn and flee. Since the marines have now won two rounds they have a momentum bonus of +2.

On the 3rd round the marines roll a 9+4+2 (for momentum) for a total of 15. The pirates roll a 4-4 (for their current effective quality of Untrained) for a total of zero. Since the marines won the round by 15 they inflict three hits on the pirates (Casualty, Morale and Casualty). Since the unit was disbanded and the hit that disbanded it (the first hit of the three) was a Casualty hit the unit is totally destroyed and will not be able to be reformed after the battle.

TERRAIN

In combat on the ground, terrain and the proper use of it can mean the difference between victory and defeat. Starship combat is no different. This section provides numerous types of interstellar terrain the game master may add to make his starship combat more colorful and interesting.

GRAVITY WELLS

Many of the terrain features detailed in this section either *are* gravity wells or have gravity wells associated with them. These gravity wells will have definite effects on ships in combat near them as pilots on both sides, to gain speed, use them to gain an advantage over their opponent. In game terms gravity wells are rated according to their strength.

Gravity Strength: The stronger a source of gravity is the stronger its effects will be and the easier it will be to use to your advantage in combat. However a strong gravity well is a double-edged sword since using it improperly could result in a crash.

A gravity well’s strength is added to any Navigate skill check to attempt to slingshot around that object in combat. If this skill check is successful the character may move an additional number of squares equal to the gravity well’s strength that round in combat.

However if the skill check fails the character must make a full move (with the added squares for the gravity well added in) *toward* the object he was attempting to use as a gravity well. His ship is now considered *snared* by that gravity well.

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, yet didn't, filled the room, "Mayday, Mayday, this is the UEG 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, Admiral?"

"That's the frontier, 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 think we're a new type of Jovian warship built in violation of the peace accords. That could extend the war, stop the discovery of the Quicksilver drive... You were there Bill, you know how close that treaty came to falling apart near the end."

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. Umber Grey is a reasonable man but also a fanatic who considered an attempt to conquer Earth.

This is the worst possible place for us to be. The entire solar system is balanced on the edge of a knife. 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. Duty first."

And with that, he left the three of them alone in the conference room and headed for the bridge.

The snared condition renders a ship flat-footed (no Dexterity bonus from the pilot to the craft's Defense) as it moves headlong toward the gravity well.

A ship snared in a gravity well can make a check each round to break free as a full-round action with a Pilot skill check (DC 20+ the strength of the gravity well). If this check is failed the craft suffers a number of d6 of damage equal to the strength of the gravity well. Armor does not resist this damage since the hull is literally being pulled apart.

In addition, a snared ship must make a full move (plus the gravity well's strength bonus to speed) toward the object each round until the pilot successfully breaks away, his attempts to break away cause his ship to break up or he collides with the object.

Note that a ship with an FTL drive can engage that drive to break free of a gravity well. In this case the pilot check is still made, but if the check fails the ship still breaks free. However on a failed check a ship takes a number of d6 damage equal to the gravity well's strength.

A ship that collides with a gravity well suffers 5d6 damage times the strength of the gravity well or the damage it would suffer from a collision with the physical object the gravity well is attached to (such as a planet) whichever is greater. More commonly a ship snared by a gravity well will break up long before collision in its attempts to wrench itself free.

A ship which breaks up in the proximity of a gravity well will immediately begin to drift toward that gravity well at a speed equal to the strength of the gravity well. If a ship was snared in the gravity well when it breaks up it will continue

to move at the speed it was moving at when it broke up (its full speed plus a number of squares equal to the strength of the gravity well).

ACCRETION DISK, SMALL

An accretion disk is a disk of matter (mostly gas and dust) falling toward a strong gravity well. In the process, like a skater pulling her arms in closer to her body, the material spins faster as it gets closer to the gravity well, eventually forming a continuous disk of superheated glowing matter extending out from the equator of the gravity well. Closely associated with accretion disks are jets of heated matter shooting out in both directions from the poles of the gravity well.

The material orbiting the accretion disk will be thin and harmless at the edges, becoming dense, fast and hot near the center. The jets extending out toward the pole are extremely hot and move at speeds approaching the speed of light.

Small accretion disks are several AU's in diameter (an astronomical unit is the distance between the Earth and the Sun or 93 million miles) and will thus not appear on the combat map itself. Rather the game master will inform the players that an accretion disk is affecting their map and the strength of its pull (which will approximate how near they are to the object).

Small accretion disks tend to be associated with newly forming star systems where matter is coalescing into the still-forming star or stars and planets. Small accretion disks are also common in older binary star systems where a small

STARSHIP COMBAT

dense star is leeching material away from a larger partner. The most common case is that in which a brown dwarf star is leeching material away from the shell of a partnered red giant forming a hot glowing disk around the brown dwarf's equator and jets from its north and south poles (the amateur astronomer among you will note that this pairing not only presents a danger from the accretion disk, jet and gravity well but is also a candidate for a surprise supernova- amateur astronomer Chuck).

Game Effect: The gravity well at the center of an accretion disk has a strength of 5 but the game master may place the strength of the gravity well as low as 0 to indicate an extreme distance from that gravity well (and may roll on a d6-1 if randomness is desired).

Note that while a strength of 0 has no chance to grant a speed boost there will still be some possibility of damage from the matter surrounding the disk. The matter surrounding the disk can be avoided with a Pilot skill check (DC 20+ the current strength of the gravity well). Failing this check results in damage equal to $10d6 +$ a number of d6 equal to the current strength of the gravity well.

Should combat take place above the accretion disk the gravity effects are the same but there will be no disk matter to avoid. Instead the Jet will appear in one square of the battle map. Any ship passing through this square or the surrounding eight squares will suffer $20d6$ damage.

ACCRETION DISK, LARGE

Large accretion disks typically form around gravity wells even more massive than that provided by a star or even a binary pair of stars, typically a black hole. These are more common near the core of a galaxy. However black holes are not fully understood and are frequently found in places where they are least expected. Some scientists even believe that black holes “wander” flowing through space.

In other words, the game master can place an accretion disk anywhere he wants and still be within the realm of possibility.

Typically the gravity well at the center of a large accretion disk will be several light years wide. It will thus be placed off the map. The game master will inform the players of the gravity well's strength and location (the direction you would travel to increase your speed).

Game Effect: Depending on the distance of the gravity well the game master may set the strength of the gravity well as high as 7 or as low as 2 (and may roll on a d6+1 if randomness is desired).

If combat takes place above the accretion disk there will be no matter to avoid, however the jet may be placed in a single square on the map surface.

The jet of a large accretion moves very quickly (at a speed of 100 squares per round) and may be placed on the map as well in a single square. A ship passing through this square or any of the eight surrounding squares will suffer $30d6$ damage.

However the jets from these accretion disks extend for several hundred light years and frequently travel at speeds approaching the speed of light. In lower PL campaigns (typically 5-6) this provides a cheap, if somewhat dangerous, way to achieve high speeds for interstellar travel.

If a ship with photon sails deployed enters the square of the jet or its surrounding eight squares it may attempt to “surf” on the jet. This requires a Pilot skill check (DC 20) and can propel the craft at interstellar distances as listed for PL 6 engines. However no fuel will be expended by this trip. If this piloting check is failed the ship will suffer $15d6$ damage and its photon sail will be destroyed.

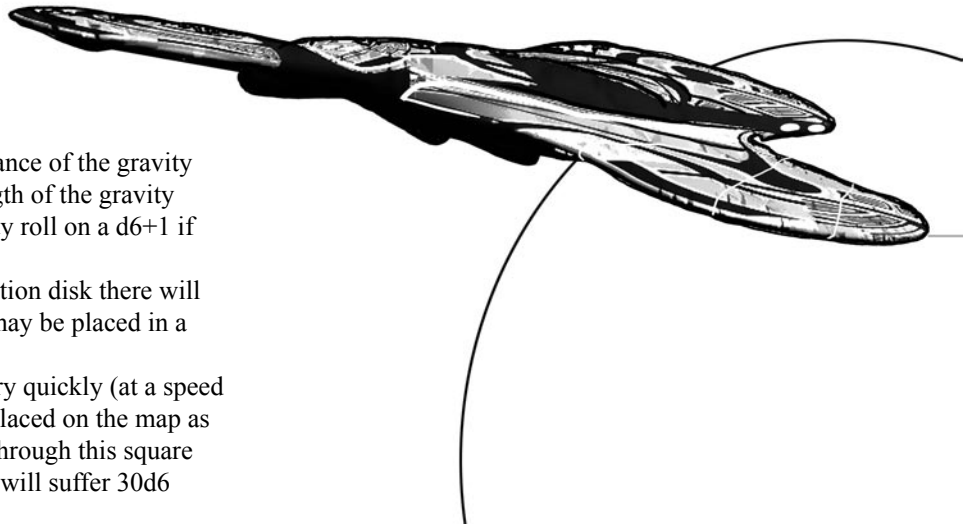
ACCRETION DISK, GIANT

Giant accretion disks are always associated with black holes, usually at the central bulge of a spiral galaxy. Many old galaxies, like the Milky Way no longer have accretion disks in their cores, the material all having been absorbed into the gravity well (or shot out in to space by one of its massive jets) but younger or more turbulent star systems might still have them.

These disks are hundreds of light years across with jets extending tens of thousands of light years out from their poles. These jets contain far more matter and move much more slowly than those from smaller, more energetic gravity wells and may be surfed into deep space.

Like rivers in the ancient world these massive phenomena serve as hubs of interstellar commerce with great empires being built at the center. Worlds will be colonized and stations for trade and the entertainment of wayfarers placed along the path of these jets far out into the galaxy.

Since the gravity wells at the center of these phenomena are so huge they will never appear on a typical game surface. The game master will inform the players of the gravity well's strength and location (the direction you would travel to increase your speed).



STARSHIP COMBAT

Game Effect: Depending on the distance of the gravity well the game master may set the strength as high as twelve or as low as 2 (and may roll 2d6 if randomness is desired).

There is only a 1 in 20 chance of a disk actually being present.

If combat takes place above the gravity well the jet will be placed in a single square on the map surface. Any ship that moves into the square containing the jet or any square up to two squares surrounding that square (the eight squares adjacent to the jet and the 16 squares adjacent to those squares) will move 30 squares away from the gravity well.

The jet of a huge accretion disk moves relatively slowly (at a speed of 30 squares per round). Since these jets are broad and relatively slow, extending for tens of thousands of light years this provides lower PL campaigns (typically 5-6) with a cheap efficient way to make long interstellar voyages with little cost.

A ship equipped with a photon sail can enter the squares the jet effects and surf the jet. This requires a pilot skill check (DC 10) and can propel the craft at interstellar distances at the speeds listed for PL 6 engines. However no fuel will be expended by this trip.

If this piloting check is failed the ship will suffer 5d6 damage and its photon sail might be destroyed (50%) or damaged requiring a Repair check of 15 to repair (50%).

ASTEROID FIELD (HARD SCI-FI)

Asteroids are composed of minerals and metals, giving them the appearance of boulders. They run the gamut from baseball-sized rocks to objects larger than many moons. This terrain feature covers asteroids too small to land on that are held in relatively coherent fields by the gravity wells between planets.

Game Effect: A realistic asteroid field is only slightly more crowded than other areas of space. While this does pose a slight navigational hazard, the odds of encountering an asteroid are very slim unless you are actively searching for one.

Realistic asteroid fields have no special effect on combat, other than to add an obstacle or two to the map area. They are usually placed as (very mild) obstacles to an interplanetary journey.

When the GM determines that an asteroid field will be crossed as part of an interplanetary journey he must first determine its density. The density of an asteroid field is rated from 1 to 10 (the GM may simply roll a d10 if randomness is desired). The density is added to the percentile roll for a meteoroid encounter when passing through the field. Meaning that even a relatively “dense” asteroid field presents little danger to craft passing through it.

Further if the check for a meteoroid encounter indicates a Huge or larger meteoroid lies along the ship’s path a Navigate check (DC the same as the Computer Use check to detect a meteoroid) will warn of its approach before any Computer Use or Pilot check needs to be made. This is

because asteroid fields are relatively stable and the larger objects within them well charted by spacers passing through. While the field will shift over time spacers report such objects to space administration authorities and charts are updated as often as necessary.

ASTEROID FIELD (CINEMATIC)

In science fiction films asteroid fields are frequently represented as being *incredibly* dense. Flying through a cinematic asteroid field is a test of the skill and nerves of even the best pilots.

Game Effect: A cinematic asteroid field is packed with objects requiring a craft within one to constantly wheel and turn and dive to avoid the objects flying through space.

Cinematic asteroid fields, unlike their realistic counterparts, are more likely to be placed on a battle map by the game master than to be encountered as a navigational hazard. The reason for this is the sheer danger of these fields. Travelers will simply plot a course around one rather than try to go through. However one does not always get to choose the field of battle so in rare circumstances a fight *will* take place in one (usually because a more skilled pilot darts into the field, daring his pursuers to either follow or allow him to escape).

Determine the density of a cinematic asteroid field in the same manner described above, either choosing or rolling to gain a density from 1 to 10. However in this case a Pilot skill check must be made each round a ship spends in the field to avoid damage. The DC of this Pilot skill check is equal to the field density+ the number of squares moved by the ship in the current round.

Each round a ship fails this check it suffers a number of d6 damage equal to the field density.

BLACK HOLE

Medium sized black holes contain the amount of matter of 100,000 suns. They have been found at the center of large globular star clusters. These massive gravity wells exert such force that nothing, not even light can escape once it crosses the boundary of the black hole, called the event horizon.

Note that while black holes themselves are very tiny (sometimes fitting within a single square) the event horizon will be from the size of the Earth to the size of the Sun. Thus a black hole will usually be placed off the map by the game master who will inform the players of the object’s strength and direction (the edge of the map you would head toward to gain speed).

Game Effect: Black holes are very powerful gravity wells with a strength from 11 to 20 (roll 10+1d10 if a random result is desired). If a pilot attempts to use the black hole’s gravity to gain speed, this is determined normally. However black holes also have a *pull* rating, which causes all craft to move in the direction of the black hole, requiring constant course corrections.

The pull of a black hole is equal to its strength –10. So a

STARSHIP COMBAT

strength 20 black hole is a terrifying object to fight near at low progress levels since all ships would move ten squares toward the black hole each round. Any ship without a working FTL drive ensnared in a black hole's gravity as the result of a failed slingshot attempt can never escape regardless of the pilot's skill. The ship will be inexorably drawn into the maw of oblivion.

For ships with a drive capable of exceeding the speed of light a black hole is a much safer place to be, since a ship that engages an FTL drive is the only type of ship with a chance to break away once ensnared in a black hole's gravity well. When the FTL drive is engaged make a Pilot check to escape from the gravity well as normal. If this check succeeds, the craft's FTL drive pulls the ship free safely. If the check fails the ship still breaks free but suffers a number of dice of damage equal to the gravity well's strength.

COMET

Comets are ice balls that are near a star. The star heats the ice ball, boiling it from the inside and shooting jets of water vapor in all directions. These jets become two tails, one prominent tail made of water and other material debris and a smaller tail made of ionized gasses. The material debris tail is slightly curved and follows the orbit of the comet. For the largest comets this tail can stretch halfway across a solar system and be miles thick. Any object flying through either tail would suffer minor physical damage.

Game Effect: The comet itself occupies one square on a battle map when it appears. The tail can be as short as a single square and as long as 100 squares or more (the GM may roll percentile dice to determine the tail's length if a random result is desirable). As a terrain feature comets are quite unusual in that they also move across the map just like ships do. When the game master places a comet on the map he will determine its direction and give it a speed of 1 to 10 squares per round. The comet will move in that direction until it leaves the map area. However the tail of the comet will remain on the map surface much longer (the easiest way to keep track of the tail is to divide the length of the tail by the speed of the comet, giving the tail a "duration").

Any ship entering the comet's tail gains 20% concealment against missile attacks. All Computer Use checks to conduct an active sensor scan suffer a -4 penalty (this penalty applies both to a ship outside the tail searching for a ship hiding within or for a ship inside the tail attempting to keep track of an opponent).

Each round a ship remains in a comet's tail it suffers a number of d6 damage equal to the comet's speed.

COSMIC SUPER STRING

Postulated to be left over material from the big bang a cosmic super string is an object of near zero thickness, almost any length (sometimes as long as several light years) and tremendous density and gravity. One of these objects would be almost as dangerous as a black hole if encountered at close range, since the tremendous gravity of the string

would curve and warp space all around it. In a young universe cosmic super strings would be more common but as the universe ages more and more of these objects are destroyed by collisions with other objects.

A cosmic super string could be placed in any number of adjacent map squares by the GM. Space would be warped in the 6 squares adjacent to the string in all directions, meaning that even a very small cosmic super string could impose a great penalty on fighting near it, since much of the map surface would consist of warped space.

Game Effect: Any ship within 6 squares of a cosmic super string is subject to its warping field. At 6 squares away a -2 penalty is imposed on all attack and skill checks. This penalty increases to -4 at 5 squares, -6 at 4 squares and so forth. Also any ship inside the warping zone of a cosmic super string must make a Pilot check (DC 15- but remember the penalties for warped space will make this check harder) to maintain its current position. If the pilot fails this check the ship is randomly buffeted into one of the 8 squares adjacent to the ship's current position. This could cause a ship close to the super string to collide with it, immediately destroying it.

A cosmic super string can provide cover for starships from enemy fire. At 6 squares a ship has ¼ cover, at 4 squares ½ cover, at 3 squares ¾ cover at 2 squares 90% cover and at 1 square total cover. Many ships decline to seek the protection of a string at close range because this often presents more danger to the ship than any enemy starships it might be facing.

ELECTROMAGNETIC STORM

These charged particle storms disrupt communications and sensors and are most commonly caused by solar flares. However an interesting phenomenon has been detected around the gas giant Jupiter as well (and it is reasonable to assume that Saturn and Neptune would share this characteristic): the moons of Jupiter large enough to possess their own magnetic fields actually interact as they cut through Jupiter's enormous magnetosphere to create a permanent EM storm! Like two pieces of flint rubbed together these fields generate EM spikes each time they touch or cross making communications to or from Jupiter's proximity a dicey proposition.

Game Effect: EM Storms come in strengths ranging from 11-30 (the GM may roll d20+10 if a random result is desirable). This is the DC of any Computer Use check for communications or an active sensor scan. In the case of a storm caused by a solar flare assume the storm will pass in 1-6 hours. In the case of a permanent storm such as one found around a gas giant a new strength can be rolled hourly as the relative position of the planet changes.

HYPERDRIVE SHADOW

This event can occur only in normal space and only in campaigns where Hyperdrives are in use. Not fully understood, it is theorized that a hyperdrive shadow is a

STARSHIP COMBAT

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 in 1-10 minutes it will overload, inflicting 20d6 damage to the ship and rendering it adrift in space unless it has another means of propulsion.

HYPERSPACE RIFT

These phenomena will only occur to a ship in hyperspace. If not detected in time (Computer Use check DC 20 or Navigate check DC 15) a ship that flies into one of these rifts will be dumped out of hyperspace in a random location 10-200 (d20 multiplied by 10) LY away from its intended destination. Furthermore, this phenomenon damages a ship's hyperdrive requiring a Repair check (DC 25) and several hours to get the engines working again.

HYPERSPACE STORM

These extremely rare phenomena occur only in hyperspace. Dangerous in the extreme, these storms are legendary for stranding travelers far from home. These storms can be detected and avoided by a skilled navigator (Navigate DC 20). However if the storm is not detected in time avoiding it is another matter entirely requiring a Pilot check (DC 30) to avoid the massive roiling fast-moving cloud. A ship caught in one of these storms is swept 10-1000 (percentile dice multiplied by 10) 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 Pilot 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.

Atmosphere: 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.

Gravity: Moons generate 1 gravity per 5 points of size, so a moon of size 1-5 has a gravity well of 1, a moon of 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 17th 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 and

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, raise the DC of any active scan by five and communications attempts must overcome a DC of 20 to be successfully sent.



STARSHIP COMBAT

NEBULA, SUPERNOVA REMNANT

Such structures can range in size from a few light years for young ones to hundreds of light years for very old ones. In the young case, the region is often a highly charged electromagnetic 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: Nebulae 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. Raise the DC of any active sensor scan by 5 and all communications attempts must overcome a DC of 25. However, a nebula of this sort might be just the place to go for a ship attempting to avoid detection.

NEBULA, GIANT CLOUD, LIGHT

These phenomena don't exist in large numbers in a galaxy but their size really makes that moot. As much as 20-30% 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, hundreds of light years across can be very dense star forming regions though, which would impair sensors and impede high velocity motion by causing tremendous friction and heating. Shield technologies might also be affected. 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 Super Nova Remnant Nebulae. In medium densities, treat them as 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 travelers.

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 it ignites in a fusion explosion. The onset of such an event would not be a complete surprise to anyone studying the phenomena that possessed a knowledge of physics; however the exact timing might not be obvious. Being within a few AUs 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 hour that the

ship is there, there is a 1 in 20 chance (cumulative) of an explosion. This explosion will deal 50d6 damage to the entire map. Although the exact timing of the explosion can never be predicted with complete accuracy, a character with Knowledge (physical sciences) 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 hour, the chance of Nova is 40% (8 or less on a d20).

NOVA, SUPER

Gigantic cataclysmic stellar explosions, supernovae mark the end of life for a star.

There are four general types of supernovae:

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 supernova remnant nebula is left behind.

2) A White Dwarf with a carbon core absorbs enough material to pass the Chandrasekhar 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 photo-disintegrate (utterly destroy at the atomic level) anything inside 10 AUs 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 is the result of this event.

4) A Neutron Star absorbs enough matter to mass 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 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 (physical sciences) might again be able to determine the general timing with a skill check (DC 15). A Super Nova explosion deals 100d6 damage to the entire map.

An adventure could easily be constructed around an imminent super nova. 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 revenge ("You might destroy me, but if I can avoid you for five minutes longer, I'll take you with me!")

STARSHIP COMBAT

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 Pilot 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 Pilot 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.

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.

Some atmospheres are *corrosive* (see the future core rules for a description of corrosive atmospheres and their effects).

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, magnetic bursts 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 active sensor scan 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 Pilot checks equal to the planet's tumultuous rating. Landing on such a world is very dicey. A Pilot check of 10 + the planet's rating is required to safely land on such a world. Failure results in a crash landing resulting in 12d6x10 damage.

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. How radioactive the planet is will be determined by the game master (see the future core rules for a description of radiation and its effects).

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 of size 6-10 has a gravity well of 2, and so on.

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 category 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 Pilot 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 concealment 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.

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 Pilot check (DC 10 + the ring density+ his current speed). If a ship fails this check it suffers a number of d6 of damage equal to ring's density.

Less common than ring systems, many gas giants have enormous, permanent storm systems. Jupiter's Red Spot is an example of this type of storm. A storm system causes the gas giant'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).

Of course the game master could put ring systems and storm systems on terrestrial planets as well. Simply because these phenomena do not occur in the one solar system we have been able to study does not mean they are impossible.

Planet, Tiny: These planets are really just free-floating 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).

PLANETOID

These extremely large asteroids are large enough to land on and even build a small base on. They range in size from 1 km to free floating moons the size of Earth's moon. Other than the fact that these objects can be encountered in asteroid fields or deep space they are otherwise identical to small moons (see above).

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 power-lines, caused 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 edge 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 squares. Should a ship be along this arc, the pilot must make a Pilot check of 30 minus the ship's distance from the star. If this check is failed, the flare has struck the ship, which suffers 30d6 damage. For example, two ships are fighting near a star. One starship is 19 squares away, when a flare erupts, and passes into the ship's square. Since the ship is 19 squares away from the star, the pilot must roll a Pilot check with a DC of 11 (30-19) to avoid the flare.

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 the 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 hands 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 fared 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."

STARSHIP COMBAT

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