The Patron Stars

A supplement to the FAST RPG By Steve Bruns

What's Here

First, a little background. Following that are two rules sections: **How 2 Play**, which has all the info for waging intergalactic battles of your own, while the next section—**How 2 Build**—Puts **you** in charge of the shipyard. Finally, after the rules, you'll find some sample starships so you can jump into the action right away.

Welcome to our universe!

Prologue. Mankind left the "old world" of the Earth, Moon and Mars behind and set out for distant stars. They settled on dozens of worlds and prospered, making the "new worlds" of the colonies.

No one expected or could have predicted how easily these worlds were tamed, or how quickly they would grow their own industrial base, no longer dependent on technology made in Martian factories. The new colonies even formed their own local defense fleets to regulate shipping and protect their worlds, much to the consternation of Earth's generals.

The new worlds recognized that they had more in common with each other than the "old worlds," and so created the Colonial Alliance. It was at that moment that a triangle of power rose up against them: the military might of Earth, the megacorporations of Mars, and telepaths from a Lunar enclave.

At first, the Triad waged a "cold war" against the colonies, trying to snuff out their independence. Embargoes, tariffs, garrisons of soldiers and outposts of ships. Telepathic spies ferreted out those disloyal to Earth.

The colonies rebelled, forcing Terran ships out of their ports, barring any trade with the old worlds until they were treated as equals.

Paranoid Earth generals responded with maximum force, determined to snuff out the spirit of independence. In a single day, they bombed each of the major spaceports on all of the new worlds. (Some captains, to their credit, refused to follow their orders, taking their ships into the ColdDark of deep space, forming the pirate fleets of the "here and now.")

The Independence War. The Colonial Alliance began a war outnumbered, outgunned. Local defense fleets were no match for the Terran armadas, and defeat looked certain.

Then, explorers made contact with the Tochi'a'tran Amalgam: an elder race of the universe with advanced technology at its disposal and a desire to find a "younger race" with which to share it. But taking on the Tochi as the Colony's Patron came at an uncertain price...

How is this different from regular FAST?

These rules are built on the foundation of the FAST RPG (which *is* required for play.) Here's what's been added:

First, in keeping with the wargame-like nature of the subject, the scale of the combat map, movement and ranges are more specific than the looser, more freeform style used in "FAST RPG mode."

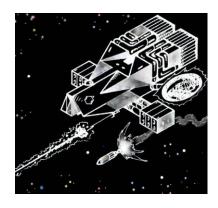
Second, is the added game of cat-andmouse that starships play as they attempt to lock onto their prey with sensors.

Also, energy allocation and management also plays an important role—will you sacrifice shielding to boost your weapons?

The mechanics of combat are largely the same, with the following additions:

- Hit Location rolls
- Breakdown checks
- Rolls to see if your weapons magazine or reactor has exploded. (Ouch!)

Finally, damage from combat is marked against a ship's systems (computers, warp drives, and the like) rather than Hit Points.



Freedom! The Terran Colonial Alliance has now thrown off the yoke of Earth's oppression. The Independence War is over, and humanity is expanding outwards into the ColdDark: wild, untamed regions of space filled with opportunity, danger and mystery. But, even as explorers look outward, they will also have to deal with aftershocks of the Independence War:

- **Pirate Fleets:** Terran deserters who now prowl the stars for profit, not honor. *Are you a member of the Alliance fleet who fights against pirate raids, captain of a tramp freighter trying to earn a (mostly) legal living, a smuggler who thumbs his nose at the law, or a cutthroat pirate, looking for riches, fame and power?*
- **Flayers:** renegade androids, exiled to distant stars. In their mad, cybernetic dreams they seek to reclaim their birthplace, and remake it in the image of their machine gods, with humanity as their servants. *Are you one of the android hunters, protecting mankind? Or, are you one of them...*
- The Triad: Every war has its share of winners....and losers.
 - The Earth is now a radioactive, nightmarish wasteland. Are you a gene-shifted Earther, looking for alien technology to heal the birthplace of mankind?
 - The Moon has become a "leper colony" of exiled telepaths. Are you an agent looking for secret inroads back into galactic power or a renegade telepath, afraid of being discovered by either side?
 - o The Megacorps of Mars find themselves scrambling to keep up with alien technology. *Are you a technocrat looking for secret alien technology, and riches?*

The Patron Stars: Our heroes will also have to find their place in a universe ruled by the elder races of the cosmos. The Patrons vie for prestige by adopting—and sometimes enslaving—younger species. Patrons in our corner of the galaxy include:

- Tochi'a'tran Amalgam: A race of living replicators. The Tochi were the Colony's ally during the Independence war, now they are humanity's Patron. Freedom from Earth, but at what price? Did the Colonies exchange one tyranny for another?
- **Vion Syndicate:** Rivals to the Tochi, the reptilian Vion are an ambitious, dangerous elder race.

Other races:

- Thrall: a rogue, Patronless race. The Thrall swarm habitable worlds with spiderlike mecha, capturing them in their energy nets.
- Owari Ki Raen: Simians who hold the keys to the Sword Nebula, a sector of space where legends say the Ancients, the first race of the galaxy, once walked.

The Angels of M/ER-C: If you're ever in a jam, and you're very lucky, you might be rescued by heroes of the Medical/Emergency Rescue-Corps, the "angels" of M/ER-C. Interstellar rescue workers, explorers, peacekeepers, exobiology specialists....the Corps exist to "serve and protect" humanity in the ColdDark of space. Formed as a peace offering of sorts and a bridge between the old and the new worlds, the Corps often find themselves caught in the middle of galactic intrigue.

Starship Rules? Isn't a spaceship just a simple vehicle?

It all depends on how big a "star" the ship is in your game. These rules are for players and GM's who want to make the ship an essential part of their story, or for players who want to play wargames with starships, but don't want to memorize a whole new set of rules. If ships just aren't that big a deal to you, yes, just make them simple vehicles. But for the rest of you, read on!



How 2 Play

These starship rules build upon the standard model of combat presented in the FAST RPG. (Go read it. Better yet, buy a copy for all your friends.) Unless otherwise noted, any situation modifiers, combat maneuvers, etc. from the RPG rules are valid here. Just use common sense (for example, there's probably no grappling—unless you're playing mecha!)

During each turn:

- **Reaction Rolls:** All Captains make reaction rolls for themselves and for their ships (Remember, ships are treated as characters—they can move and act, but only on their turn.)
- **Energy Management:** All Captains calculate the energy output of their reactors and assign energy to shipboard systems. This does not count as an action.
- Movement/Actions: Men and Machines each take one action, going in order of their React.

Because a starship is a meld of man and machine, movement is split between the Captain's turn and the starship's. If none of the ships in play have Captains, still break movement into two phases, but simply alternate turns between players.

Remember, actions and movement can always be "held" until later in the order. Example: Pirates are trying to bluff their way past the local patrol. On their turn, they opt to wait and see if the local constabulary raises shields.

Energy Management

Captains need to consider what tactics and maneuvers they—and their opponents—might attempt and budget their energy resources carefully.

Normally, energy management DOES NOT count as an action. However, after actions have begun, a captain might change their mind about where energy needs to go. They can re-route energy, but it WILL count as their action. Example: A Patrol Corvette acts between some agile snub fighters and a big gunboat. The PC had originally budgeted energy to attack the gunboat, but the snubs beat him up pretty badly. Moving his energy to shields looks like a better option. This counts as his action for the turn.

Reactor. At the start of each turn, a ship's captain takes stock of how much energy he has at his disposal from the reactor, the battery and auxiliary power sources. Energy from the reactor is replenished at the start of every turn. It starts out producing 3 energy points for each PL of the reactor, and then gets weaker as the reactor takes battle damage. (This is marked off against the Reactor's PL's, not the amount of energy it produces.)

Battery: This is a "bank" into which the captain may deposit or withdraw energy as needed. 1 PL of Battery can store up to 3 energy points. Unless a scenario (or your friendly GM) dictates otherwise, starships begin with a full battery.

Advanced Option: Supercharging: There are times when you need just a *leeedle* more speed from the engines, or damage from the energy weapons. Systems that rely on reactor power can be pushed beyond their design limits—but you run the danger of blowing out the circuitry.

It takes 2 energy points to increase the performance of a system 1 Power Level past its rating. At +5 PL (which takes 10 additional energy points), make a Breakdown roll of 1 in 6: a failed roll means the system blows out and is reduced to zero. Additional rolls are made as shown in the boxed chart.

SuperCharging				
Levels Gained	Energy <u>Needed</u>	Breakdown <u>Chance</u>		
+5 PL	10 Energy	1 in 6		
+7 PL	14 Energy	2 in 6		
+9 PL	18 Energy	3 in 6		
+11 PL	22 Energy	4 in 6		
+13 PL	26 Energy	5 in 6		

Note! This is independent of and exclusive of "bumping up" a system's performance with Fate points. You can't do both. The difference? If you use Fate points, you *don't* run the risk of a breakdown.

This page:
Ships
of the
Colonial Fleet

Movement: Scale "Space is really big..."

Starship combat takes place on a mapboard marked off into hexes, each measuring tens of thousands of miles across. A hex can comfortably hold a fleet of ships, or a planet. It takes a gas giant or a star before it really starts to fill up one space on the map.

Normal Flight: Starships get 1 hex of movement per Power Level. Slow ships travel 12 hexes or less, Average ships travel in the teens, while Fast Attack Vessels travel 20+ hexes/turn. "One hex of movement" can either be in a completely straight line OR forward and over to the side one, so long as the ship remains facing in the same direction (see example.)

slow ships travel 12 essels travel 20+ aight line OR in the same

Facing, Turns, Reverse Movement

A ship always faces one side of a hex—an important tactical decision since most weapons have limited arcs of fire—how can you best position yourself to bring your guns to bear on the enemy? Also, each hexside represents a different defensive screen or set of armor plating. Which side do you want to show to your enemy?



To turn, a ship "burns" a hex of movement for each hexside of facing change.

Reverse movement costs twice the normal rates (this includes reverse turns—where a ship backs up and changes facing.)



Coasting: Because the scale is so vast, you don't always see Newtonian physics at work. Ships that moved during their turn can elect to coast on the following turn, continuing along the same heading, moving 1 hex per turn. It doesn't matter whether this is done intentionally (to save energy) or

unintentionally (your drive was destroyed.)



Falcon Multimod Vehicle

Orbiting: There is a gravity well in the hexes around a planet or star that Captains can use to their advantage: travel through these hexes count as "free moves."

To enter a planet's parking orbit, simply move your ship into a hex next to the planet. On the next turn it will move at the coasting speed of 1 hex/turn. Ships in a parking orbit always face the same direction, although this MAY be stated as:



- Towards/away from the planet
- Towards/away from the direction of travel
- Clockwise/counterclockwise

A captain may increase the orbital speed, or change facing, but must expend energy to do so (and these ships are no longer traveling in a stable orbit. If their drives are taken out, they're goin' down.)



Advanced Maneuvers

The Slingshot Effect: Starships routinely use the effects of a gravity well to give them extra velocity. The more extreme version of this is the slingshot, diving deeply into the gravity well for an extreme, rollercoaster-type boost. (But let's be clear: you can go faster by zipping around a star but no one's traveling backwards in time with this one.) To do this, a ship enters a hex next to a planet—the beginning of the dive. On the next turn move the ship counter on top of the planet as it "bottoms out" and make a piloting roll for the ship as it begins to turn away. (A blown roll, and "it's game over, man, game over!") On the third turn, move next to the planet, as the ship's engines break away from the gravity well, and apply extra velocity gained.



How much speed is gained, the Difficulty rating of the maneuver, and the amount of energy required for the engines to break away, all depend on the size of the stellar body.

Object	Maneuver	Energy	Speed	
Size	Difficulty	Needed	Gained	Example Object
Small	10	1	+2	(Lg. Asteroid, our Moon)
Medium	12	2	+4	(Earth, inner planet)
Large	14	3	+8	(Gas giant)
Star	16	4	+16	(That big yellow ball of fire in the sky)
Black Hole	20	5	+30	(insert your favorite town here)

Planetfall: Landing on a planet takes two full turns. You must enter orbit on the first turn then land on the second. Picking up/dropping off an item (as part of a scenario) takes a full turn. To leave: liftoff on one turn, enter orbit on the second. (5 turns altogether.) Using shuttles to retrieve/drop off items doesn't go any faster, but does leave the main ship parked in orbit where it can defend the shuttle.

Types of Ships

Carriers: Mobile launch base for escorts, snub fighters or mechanized infantry.

Battleships: Large ships that carry a variety of armaments, both beam and missile weaponry, as well as a limited number of fighter escorts.

Cruisers: Small to medium-sized vessels that operate on the edges of the battlefield, supporting fleet actions. Cruisers are often the "eyes and ears" of the fleet. Typical armament includes missiles and sensors. Cruiser commands stress independent thinking and initiative, since captains are often isolated or far from command centers.

Destroyers: MDestroyers are designed to take out capital ships and military installations. Most Destroyers sport a single, high-energy weapon and a number of smaller support weapons.

Corvettes: Smaller multipurpose, multimission ships, they are sometimes specialized: Planetary Command, Fast Action, Patrol, etc.

Support Ships

- Mechanized Infantry/Marine Lander
- Cargo Ship
- Tender
- Tuq
- Salvage Ship
- Rescue Ship

Optional Rule: Pilots and Gunners

You can play "No Pilots," "Simple Pilots," or "Full Pilots."

Simple Pilots

Less than a full character, more like a system, they just get a DEX rating and a Skill:

Ranged Weapons = 3 Pilot = 5

Full Pilots

These are complete characters, usually built with 40 CCP's. When using pilots (either simple or full), the number of Weapons fired in a turn is as follows:

- 1 weapon system fired using the Ship' skills and stats
- 1 weapon fired by the pilot (and/or gunner) using his skills and stats
- 1 defense roll using the Pilot's skill and the ship's stats. Use this combination for piloting, stealth, etc. For example: a pilot wanting to attempt a tricky move would use his skill and the ship's DEX.

Sensors: The Game of Cat and Mouse

Space is big and dark. A battle between two starships can be thought of as two gnats in a barn armed with lasers, trying to play tag. It's just really hard to hit anything without some help from the ship's network of sensors, computers and fire control software.

To that end, the FIRST thing a captain wants to do is get a positive sensor lock on his enemy. Otherwise, you're firing blindly into the hex where you think your opponent is lurking.

Firing on an opponent without having a sensor lock: -3

Once sensor lock is achieved, the enemy is actively tracked by computers and sensors, making a hit much more likely.

nore likely. Firing on an opponent with a sensor lock: +3



Just to be clear: it is possible, indeed common, to know which hex your opponent is in, but not have a sensor lock on him. It's not the same thing as being invisible.

To achieve a sensor lock:	To avoid someone else's sensor lock,
make a Perception roll,	make a Stealth roll,
using your ship's INT plus	using your ship's DEX plus
+ Science or Ranged Weapons skill	+ Pilot skill (and taking an action to do so) + Bonuses for stealth +2 if coasting +2 if weapons are unpowered +2 if shields are unpowered +2 if under cover (asteroid or debris field) +4 if behind a planet +6 if behind a star +6 if in a nebula

If a successful roll is made, you have "sensor lock" which can be maintained indefinitely (for no energy cost) unless your sensors are destroyed or the target makes a new stealth roll (taking an action to try and "shake them off.") The better your success, the more information is gathered about your foe (see the table below.)

Sensor Type and Success on Skill Roll	Used Passive Sensors Only (No Pinging), Roll made by 1-4	Active Sensor Roll 1-4 or Passive Sensor Roll 5+	Active Sensor Roll 5+ or Passive Sensor Roll 10+
Amount/ Quality of Information Gathered	 Defensive screens up or down? Gunports open or closed? Profile: type of vessel 	 General condition of defensive screens and armor General condition of weapons (powered or not, turrets active, etc.) General condition of the target (life signs? Operating normally?) 	 Exact level of defensive screens Exact condition of weapons Exact crew and vessel conditions

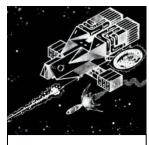
This page:
Ships
of the
Triad

Types of Sensors: A ship actually carries two kinds of sensors: Active and Passive. When a ship's captain buys Enhanced Senses (for 5 CCP), he actually receives some of each kind of sensor—they work together with the ship's computers to paint a tactical picture of what's out there.

Passive Sensors: an array of telescopes and detectors that measure what energies are around the ship. They sit and "look", with a range extending to the far reaches of the galaxy. Using Passive sensors alone, you can navigate, tell what hex your opponent is in, (unless he has some kind of weird invisibility cloak.) Achieving a sensor lock with passive sensors is possible, although more difficult. BUT, it's *sneakier*, since there's nothing to tell your opponent he's in your gunsights!



Clydesdale All-Purpose Tender



Cerberus System Defense Boat

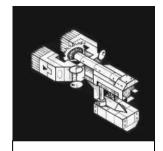
Active Sensors: the ship sends out waves of energy that bounce off nearby objects (the normal range of active sensors is equal to your ship's INT). This is called "pinging." It's much, much easier to get a sensor lock this way, and will reveal more information about your enemy. But, it *DOES* announce your intentions to shoot. Be ready!

Sensors: Range and Common Mods

Passive sensors have an extremely long range, extending to the edges of the map and beyond. Active Sensors have a range in hexes equal to the Intelligence rating of the ship. Sensors can take the modifier: Extended Range (double range for +2 Points.) Sensors may be also be improved by spending 1 CCP to gain +2 to rolls.

When Sensors are Destroyed: Losing all of your sensors (either through combat damage or by turning them off to conserve power) means that the ship is navigating by virtue of the naked eye, which in interstellar terms is practically flying blind. -6 to all rolls: navigation, combat.

Line of Sight. As noted before, space is really big, and anything less than a star or planet DOES NOT block line of sight between ships. Even then, you must be in the gravity well (right next to the stellar body) in order to take advantage of the block. Blocked line of sight affects sensors as well as lasers and other direct-fire weapons.



Odin Freighter

Fire Control (Who's manning the guns?)

Starships act as a character, as do Captains. Each acts on his own turn, but the faster of the two can always delay and take their turn with or after the slower one.

Player-character Gunners use their own skills and stats to fire weapons. (Pilots, as mentioned before, use *their* skills, and *the ship's* stats.) If you're playing starships as part of a role-playing game, it would seem logical that if you have Engineers and Tactical officers, etc., that each one rolls a separate React. Logical yes, but extremely slooooow. Do what makes sense. A good compromise is to have all the humans act on the same turn as the Captain.

Range: Weapons and Sensors

Weapons ranges are equal to their base Power Level. The most common modifiers are Extended Range (double range for +2 Points), Short Range (1/2 the normal range for -2 points), and Point Blank Only (1/4 normal range for -3 points.)

FIRE!

Compare your Offense roll (Skill plus DEX) to their Defense roll (Skill plus DEX) as usual. Tie goes to the defender. If a hit results, make hit location rolls and start applying damage.

Hit Locations in Combat

Standard Hit Location Procedures.

Roll a d6:

1=Surface Damage: For every 5 points of damage, reduce armor or shields by 1 on the side that was hit. Otherwise, no further damage.

2-6=Roll for which compartment was hit.

6=Critical Hit! Roll for which compartment was hit, and apply damage directly to one system—no armor allowed!

Got Pods? Starships with external pods of weapons, sensors and the like (typically unarmored and exposed to fire) check first to see if these were hit. Each pod is evenly assigned a number on a d6. A ship with two pods, for example, would have the first hit on a roll of 1, the second on a roll of 2, or a normal hit location roll if a 3-6 is rolled.

Compartment and Systems Roll

Shields and Armor didn't soak it all up? Roll on that starship's hit location chart to see what compartment was hit, then which system takes the damage.

Soaking up Damage: Shields, Armor

First subtract the protective power of the Shields, then Armor. Note that some weapons are "corrosive attacks" and will damage Shields or Armor, reducing them by -1 for every 5 full hits of damage. This is **in addition to** any other damage they do. This will only affect the hexside of armor or shields that most directly faces the opponent.

Taking Damage

Any damage that gets past your defensive screens and Armor is applied to the base Power Levels or points of Attributes of the system rolled. (For example, a radar array costs 5 CCP and can take up to 5 hits before it is destroyed.) Generally, systems function at full capacity until it suffers a "breakdown" or is destroyed.

Breakdown

When systems take enough of a beating, there's a chance that they will suffer a Breakdown and quit working (even if there's hit points left). The first Breakdown roll is made when a system is reduced by half its original score: roll a d6, and if a 1 comes up, the system quits. Another roll is made on every additional hit that scores damage (regardless of how trivial or severe.)

Ordinarily, a Breakdown simply means the system quits working (your computer crashes.) But some systems have "Explosive Failures" (like a warhead or a nuclear reactor) and might explode. Follow the standard Breakdown rules, but with the following addition: roll a d6:

- Even=normal Breakdown,
- Odd= system explodes, inflicting additional hits equal to half the Power Level of the weapon on anything in that compartment.

What 2Do with Excess Damage

Quick Combat: If a system is totally destroyed, roll again within the same compartment and keep destroying systems in that compartment until you run out of damage or everything's gone. If there's still damage left over, it goes off into space and is lost. Depending on how many ships are involved and how complicated the scenario, this method will produce combats of an hour or two in length. (Want really quick combat? Ignore the compartments and let the damage keep going, until you run out of damage points or systems. Be warned—this will result in ships getting "one punched" in combat.)

Full Tactical Combat: If a system is totally destroyed, the excess damage goes off into space and is lost. This will produce much longer combats, where a single encounter will take an entire convention slot or afternoon.

The Reactor Reacts

A reactor takes damage somewhat differently than most systems. It gets reduced with every point of damage that it takes (as usual). It is also prone to explosive breakdowns, with a 50% chance for an explosive breakdown, BUT, because a reactor is tied in so tightly with every system on board a ship, when a reactor blows up, it dishes out damage equal to TWICE its current power level against every system on board ship, EQUAL against anything in the same hex, and HALF against anything in a neighboring hex. (Owwwch.)

Life Support Breakdowns. If the life support goes, your crew begins to slowly suffocate. In 5 turns, they will be unconscious, and your ship will be left uncrewed. (See "Life Support" in the "How 2 Build" section for the gruesome details.) If the crew's gone, -6 to all shipboard rolls (and that's only if you're GM is feeling nice!)

Repairs

Stopping to fix the energy cannons and rewire the computer counts as an action. Use INT plus Science, Engineering or Gadgeteering skills. The difficulty of the repair is equal to twice the amount you're trying to repair, AND requires 2 energy points per PL of repair. *Example: a starship loses its Life Support, which is rated at 15 points. A player-character engineer is on board with an INT of 10 and a Science Skill of 5. She decides to try to fix 7 points worth, for a difficulty of 14 and a one-time expenditure of 14 energy points.* Captains may also buy the Healing Power to represent squads of robotic assistants. These count as systems. "They've shut off the main reactor, we're doomed for sure!" And as always, Fate dice may be burned, gaining back an amount equal to the Fate dice roll.

ECM/Jamming

The basic Electronic Counter Measures package costs 5 CCP, and allows the user to make a sensor roll against the target. If successful, the starship's active sensors and communication network creates interference that makes the victim unable to communicate with the outside world. (Note: this is different from using stealth to hide or evade sensor lock, nor is it related to EW, below.)

EW

The basic Electronic Warfare package costs 10 CCP and allows one starship's computer to attempt to Dominate (per the psi power) the enemy computer. Willpower+skill vs same. Player-characters who want to attempt a manual override may either use skill vs. the original Domination roll or take a -6 penalty as they completely unplug the unit from the system's computer network. Rebooting takes one turn, after which the system is restored to normal.

Dominate Result	Control Gained Over Target
WIL + 1	Obey any reasonable suggestion or request that conforms with the current orders and situation.
WIL + 5	Obey command that the target isn't opposed to doing, for example: shut down a tractor beam for maintenance.
WIL +10	Obey command that the target doesn't want to do, for example: lower shields in the face of an enemy
WIL + 15	Obey command that runs strongly contrary to target's character, values, ethics, or morals. For example: fire on a friendly unit.

How 2 Build

Just like ships of old, starships are referred to as if a woman, and may often steal a captain's heart. So they're a lot like characters, (except they never have to remember their mom's birthday, and hard vacuum doesn't seem to bother them.) Seriously, if you're going to the trouble of writing up the stats, make sure it has character—a distinctive name, a look, etc. Questions to ask:

- Where was it built, and what kind of technology does it hold? Colonial? Triad? Alien? The Ancients?
- Is it built for commerce, battle, racing, exploration? Practical or for looks?
- How old is it? Who were the previous owners?
- What's its name?
- How did your characters acquire it? Bought? Stolen? Found? Salvage? Inherited? (Simply assigned?)

Starships have Characteristics (all four!), skills and powers, bought with Character Construction Points. They represent the many different kinds of systems that starships use, like:

- Energy weapons (bought as Strike),
- Protective screens (Armor)
- Thrusters (Flight)
- Faster-Than-Light Drives (represented by a new Power called FTL Drive)

Systems Based on Attributes INTELLIGENCE

Artificial Intelligence is a staple of science fiction, and is shown through (logically enough) the Intelligence score: the sophistication, depth and overall IQ of the ship's computer. It is also used for sensor sweeps, and other perception checks, just like regular characters. "Open the Pod bay doors, HAL..."

Note that the Intelligence is **always** bought with the character flaw: "Limited Intelligence." In this case, the computer gets full INT for routine duties: plotting courses between stars, scanning asteroids, etc. But it only gets half INT for other tasks—playing chess, forging documents, etc. (Good rule of thumb—the hardware should never upstage or reduce the need for players.) Oh, and for you shipbuilders out there, the Intelligence gets plugged into the Main Computer (see below.)

WILLPOWER

This attribute is an important part of the ship's Artificial Intelligence, the security software. How easily can others hack into your system? Thus, Willpower is also part of the Main Computer.

The Main Computer

Bundle together the INT and WIL scores, plus any skill levels that the ship has AND points invested in the Battleready Benefit (if you purchased it, of course.). The size of the AI (and thus the amount of room it takes up, called Carrying Capacity) varies widely, depending on the level of technological development of the campaign:

Steampunk: Each Point of Al takes up one Hit Point of Carrying Capacity

1950's: 1/2 Al's total points

Modern Era: 1/5th the Al's total points

Futuristic Era: 1/10th the Al's total points (this is the assumed default) **Distant Future:** Al doesn't need any Carrying Capacity to support it.

Remember, computers take damage based off their base levels (*like* all other systems) which is NOT going to be equal to its CC (*unlike* most other systems.) Loss of the main computer means that the ship (and its many, many systems) are running "information blind," and will incur a -6 penalty to ALL operations until repaired.

BODY

Ship's Reactor: Just as a character's BODY gives them energy and life, so does a starship's BODY. There's just more atoms whizzing around in a starship's heart. Reactor size and its energy output are represented by the ship's BODY score, and there's only so much power to go around. Starships are built with the following 5-point Limitation: All Powers depend on reactor. (Note that this is a Plot Hook, not a Power Modifier!) Any Power that doesn't use the reactor must pay a +2 Power Modifier.

The amount of Power Levels put out by the reactor each turn is equal to three times the ship's BODY score. These PL's must be divvied up at the start of each turn. Navigating an asteroid field? "Full power to deflectors!" Zapping an asteroid that threatens to wipe out a colony? "Energy weapons to maximum!"

The Reactor, like most systems, can also take damage in combat and Break Down. But they don't take kindly to being shaken up too much. Reactors are prone to explosive failures, and have a 50% chance on a Breakdown of blowing up, inflicting damage equal to their remaining PL's on EVERY SYSTEM. It also inflicts damage EQUAL to the buildup to any ship in the same hex on the combat map, and HALF that on neighboring hexes. (That's a good time to know where the lifeboats are.)

How quickly this happens depends on your GM. (Be nice to the GM.) In head-to-head tournament play, use the following method: your opponent rolls 1d6, reads and covers it immediately. This is the number of turns you have until the reactor blows up.

Needless to say, if you lose your reactor and your ship isn't vaporized, it's still dead in space, with no power for any of the systems, including (EEK!) life support.

Ship's Size. A starship may be built like a character, but they're much, much bigger. Even a snub fighter is the size of a modern fighter-jet, so almost all starships will be built with the flaw: Larger than Human Size, getting penalties to Stealth and Defense (see box.)

BODY Score Ship Type.

Less than 10 = EVA suit, Individual escape pod, Life raft
Low Teens = Work drone, Shuttle pod, Life boat
Mid Teens = Snub Fighter
Upper Teens = Fighter/Bomber, Local Patrol Craft, Large Ship's
Boat, Tug
Low 20's = Small space station, Patrol Corvette, Frigate
Mid 20's = Medium space station, Battleship
Upper 20's = Sector command &control ships, fleet carriers
30 = "That's no moon--it's a space station."

BOD	Defense/ Stealth Modifier		
26-30	-4		
21-25	-3		
16-20	-2		
11-15	-1		
10 or less	none		

DEXTERITY

Thrusters. This score represents a number of different systems: movement, fire control, thrusters, etc, as well as reflecting the tech level and design of the ship. Is it fresh from the design boards with the latest gear, or is it a junker? Fast or slow? A starship gets free slower-than-light movement (maneuvering thrusters) equal to its DEX score. A ship that loses all its DEX has lost all control jets and is tumbling in space, never to be seen again (*or, at least not until the sequel.*) -6 to all piloting rolls.

Movement Types: STL/FTL Travel

(St. Louis Speed? Faster Than Light Speed? Isn't that the same thing?)

The most important function that a starship fulfills is travel: they send humans to the stars, soaring over alien skies. Slower-Than-Light Travel moves a starship in a variety of ways: solar sails, chemical rockets, etc. Unglamorous, yes, but not unimportant: starship combat happens at STL speed, so don't skimp on the lon Thrusters!

FTL Travel

It takes great energies (and bending a few physical laws of the universe) in order to travel the vast distances between the stars. Of course, all **you** have to do is purchase the new Power: Faster-Than-Light Travel.) Travel times are listed on the chart below. Note that numbers have been fudged for simple minds (mine) and easy of play, not accuracy.

There are three different			LY	LY	Parsecs	Parsecs
known methods for achieving		Ship's Speed	traveled	traveled	traveled per	traveled
FTL travel in the universe of	PL	C/Light Speed	per Day	per Hr	Day	per Hr
the Patron Stars.	1	1	Speed of	Light=186,2	282.4 miles per s	econd
	2	1.5				
Wormhole Bomb: after	3	2.25				
stable wormholes were	4	3.5				
discovered, research began	5	5.				
on replicating the effect.	6	7.5				
"Wormhole on demand" was	7	11.5				
the concept and "Wormhole	8	17				
in a can" is what they got: a	9	25				
bomb that violently tears	10	40				
apart the fabric of space,	11	60				
creating a brief gateway	12	85				
between distant points in	13	130	.3			
space. A "Wormer" is	14	200	.5			
actually a form of	15	300	.8			
teleportation, allowing	16	450	1			
instantaneous travel.	17	650	2		.5	
	18	1,000	3		.75	
Great, right? Actually, the	19	1,500	4		1.25	
bombs proved so	20	2,250	6		2	
complicated, unstable and	21	3,500	9		2.75	
dangerous, that the only place they have gained	22	5,000	13	.6	4.25	
routine use is on Station	23	7,500	20	.9	6.25	
Houses of the	24	11,500	30	1.25	10	
Medical/Emergency Rescue-	25	17,000	46	2	14	.6
Corps, the "angels" of M/ER-	26	25,000	69	3	20	.9
C. Wormers can send these	27	40,000	104	4	30	1.25
interstellar rescue workers to	28	60,000	155	6.5	50	2
disaster sites (troubled	29	85,000	233	10	75	3
colonies, shipwrecks, etc.) in	30	130,000	350	15	110	4.5
a flash. However, most						

M/ER-C ships are equipped with a normal spatial displacement drive for the long, slow trip home.

For each Power Level, a Wormer sends the ship the distance listed in the first column of the Interstellar Travel chart, all in ONE TURN. It's a wild, rough ride down the length of the wormhole. (The angels of M/ER-C affectionately refer to traveling by Wormer "the big flush.") It comes with the following modifications: Explosive Breakdowns (-3), Rough Ride (-1), Unreliable: fails or misfires chance equals 1 in 6 (-1) **Total purchase modifiers: -5**

Spatial Displacement Drive: creates a bubble of space-time (a "distortion field") that allows FTL travel to occur. A ship with "SD-Drive" often has a large midsection that contains generators which project space-warping energy along sharp, forward-thrusting antennae, or spires. SD-Drive has some drawbacks: it's the slowest of the three methods, requiring 3 turns to spin up the drives, deploy the spires and go.

The distortion field that it uses to bend the fabric of space around the ship is something of a two-edged sword. It cuts the ship off from the outside world, blocking all known forms of communication, and makes the ship virtually "blind." The distortion field is also very easy to detect by other ships in normal space. However, since you ARE cut off from the outside world, ships in the distortion field are virtually invulnerable, since normal weapons (missiles and lasers) can't pierce it. However, there are plasma weapons that can "sap" the strength of field and destabilize it to the point where a ship is forced back into "normal space." (Referred to by crews as "Goblins," "Hobgoblins" and "boogers.") SD drive has the following modifications: 2 Turn startup delay (-2) **Total purchase modifiers: -2**

Q-Drive: The universe is joined together by an infinite number of quantum filaments, threadlike strings of energy. Ships equipped with Q-Drive have but a single arm (or "bow") that they use to find the quantum filament that leads to the place that they want to go. The Q-Drive tunes the ship's subatomic harmonies to match the filament, and the ship and the filament begin to glow. Then, with a flash, the ship is off at FTL speed. Q-drive is used by the Patron Stars, and is the fastest known method of travel. The only disadvantage is that it is a very "public" means of transportation: anyone with a scanner and basic FTL travel knowledge can deduce where a Q-drive ship is going. **No purchase modifiers.**

Note that FTL travel is a weird blend of movement and teleportation, and since "not being affected by the outside world" is part and parcel of teleportation, there's no bonus for this aspect of FTL travel.

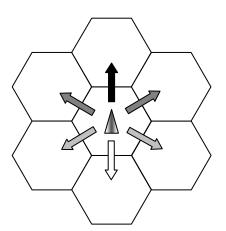
Offensive Systems: Firepower

Weapon Systems

Listed below are common, "off the shelf" weapons systems. Unless stated otherwise, the base Power for each of is Strike. Most weapons are housed in bays inside the structure of the ship for ease of maintenance, hidden behind thick doors. (Think "pirate ships and cannons.") It takes one turn to open and ready guns and missile racks. Flying with gunports open is considered an aggressive stance.

Common Weapon Modifiers

- +2 to Anti-missile fire (+1).
- +3 to Anti-missile fire (+2)
- +4 to Anti-missile fire (+4), etc.
- Armor Piercing Attack (half normal protection) (+2)
- Corrosive Attack (every 5 hits of damage also lowers the victim's armor by 1) (+2)
- Area Effect (affects 1 hex per 5 pts OR +1 per 5 points for a single target) (+3)
- Explosive Magazine (-3)
- Fires every other turn/needs 2 points of energy to prime (-2)
- Limited Range: Point Blank Only (1/4 normal range) (-3)
- Limited Range: Short Range (1/2 normal range) (-2)
- Short Delayed Effect (Hits at the end of the next turn) (-1)
- Medium Delayed Effect (Hits at the end of the second turn) (-2)
- Long Delayed Effect (Hits at the end of the third turn) (-3)



Arcs of Fire for Weapons

Weapons are normally bought and mounted on one side of the ship, limiting the amount of "sky" that it can cover. The default is 3 hex sides (and everything in between). Other arrangements are possible.

- Omnidirectional = +3 (Example: a turret mounted on the top or bottom of the ship.)
- 5 Hex sides = +2 (Example: all sides but directly behind)
- 4 Hex sides + 1 (Example: weapon mounted on the port or starboard side.)
- 3 Hex sides = default
- 2 Hex sides = -1
- 1 Hex side = -2

Magazine Weapons (Missiles, Machine Guns and Cannons)

These weapons are all subject to explosive breakdowns due to the presence of rocket fuel and high explosives. (Hmm...sounds like a party to me!)

"Can Openers:" Excellent short-range weapons that throw out thousands of slugs per minute. On Starships, Can Openers are often used for point defense and anti-missile fire. Limited Range: Point Blank Only (1/4 normal range) (-3), Explosive Magazine (-3), Corrosive Attack (every 5 hits of damage also lowers the victim's armor by 1) (+2), +2 to Anti-missile fire (+1).

Total purchase modifiers: -3

Missile Weapons. Good for delivering explosives at range. Missiles can be shot down by the defender. To do so, they must attack the missile and exceed the original attack roll by 2.

Short Range Missiles: Only "Can Openers" can be used for antimissile fire against SRM's, which launch and strike in the same round. Explosive Magazine (-3), Area Effect: 1 hex per 5 PL or +1 to attack roll against a single target per 5 PL of Strike (+3), Short Range (1/2 normal) (-2).

Total purchase modifiers: -2

Medium Range Missiles: Medium Range Missiles Launch one turn, and strike at the end of the next turn. Explosive Magazine (-3), Short Delayed Effect (-1), Normal Range.

Total purchase modifiers: -4

Long Range Missiles: LRM's launch, fly for two turns, and strike at the end of the second turn. Explosive Magazine (-3), Long Delayed Effect (-2), Extended Range (double normal range) (+2).

Total purchase modifiers: -3

Missile Rack: If missiles are bought in limited numbers, the following additional mod's apply:

- 1 missile = -3
- 3 missiles = -2
- 6 missiles = -1

Beam Weapons (Lasers, PuGs and HEAT).

These weapons all use an emitter to focus raw energy--coherent light beams (lasers), high-energy explosive particles (PuG's), etc.—at their opponent.

Lasers: Standard, mass-produced weapon. Use the Strike Power. Can be bought with any or no range penalties/enhancements.

PuGs: The high-energy particles produced by this gun live short, violently explosive lives. Armor Piercing Attack (half normal protection) (+2), Point Blank Only (1/4 normal range) (-3).

Total purchase modifiers: -1

HEAT: "Don't cross the streams!" High-energy plasma streams heat things up quickly. Corrosive Attack (every 5 hits of damage also lowers the victim's armor by 1) (+2), -2 Accuracy (-1), Short Range (1/2 normal range) (-2).

Total purchase modifiers: -1

Particle Lance: This is the big gun found on most battleships. The Particle Lance needs a long, linear accelerator to properly focus its attack (usually built along the length of the ship.) For this reason, it has a very limited arc of fire. Also, the Particle Lance must be "warmed up" with two points of energy on the turn prior to firing. (This energy is lost.) Fires every other turn/needs 2 points of energy to prime (-2), Limited 30 arc of fire (-2), Armor Piercing Attack (half normal protection) (+2), Corrosive Attack (every 5 hits of damage also lowers the victim's armor by 1) (+2) Total purchase modifiers: 0

Defensive Systems: Armor, Screens

These two types of defense soak up damage, and a starship may have either or both. A "screen" is a gravito-magnetic bubble that surrounds the ship, bought with the Armor Power. Armor plating uses the same power, but since it doesn't need energy from the reactor it's bought with a +2 Power Modifier.

Either way, the protection they offer the ship begins the same on all sides, but, as corrosive attacks hit, they whittle down the protection on the hexsides that were hit. Important tip: keep the sides with the weak shields away from the angry aliens.

Other Systems: Aux Power, Life Support, Sensors, Etc.

Auxiliary Power/"Engineer, we need more power!"

Ships can purchase auxiliary power systems like solar panels on a 2 CCP = 1 PL basis. Auxiliary Power systems produce 3 points of energy for each PL bought. They are somewhat safer than a ship's reactor in that they don't explode when they fail.

A battery doesn't produce energy; it just stores it for later use. And, in this future universe where near-perfect efficiencies have been reached, 1 point of power put in one turn can be stored indefinitely for use on a later turn. The cost of a battery is 2 CCP = 1 PL. Again, for each PL it stores 3 points of energy.

Life Support/Crew

Artificial gravity, fresh air...a hundred years from now it'll be child's play to create systems that recycle air, water and waste. See the chart below, but note that this is BASIC life support. For +5 PL, you can upgrade to comfy, commercial "Standard" units. For +10 PL, the finest in Luxury accommodations is yours.

- PL Number of Passengers Long Term/Short Term
- 1 1/3 passengers
- 5 3/6 passengers
- 10 24/50 passengers
- 15 50/100
- 20 Hundreds/Thousands
- 25 Thousands/Millions
- 30 Millions/Billions

If Life Support breaks down, or is shut off/unpowered, a countdown begins: everyone on board will lose half their hit points each turn. Given that starships are crewed by average Joes, with the average amount of Hit Points=15 (then 8, 4, 2, 1 and 0). When they reach zero, that ship is dead in space. The clock can be reset by fixing Life Support or by making a planetary landing. A captain may also avoid killing his crew by leaving the combat map, but may not return. GM's in a merciful mood may allow the ship to continue acting, but at a -6 penalty.

Crew. How many crewmembers does it take to run a ship? In the distant future, automation can handle almost all the routine tasks. But ships are still made to take **people** to the stars, and so there will always be a need for live crewmembers for a ship to work at peak efficiency. Compare the BODY of the ship to the Life Support Passenger table. Go up one entry to the number of Short Term Passengers—that's your ship's required crew. *Example: The Hesperides is a warship with a BODY of 25. Jumping up one entry shows it needs a crew of hundreds of sailors.* Crew is not treated as a separate system for the purposes of recording damage.

Boat Bays

These are resources. If your ship boats are simple shuttles, every point put into the boat bays gives you a vessel with 5 points of STL Flight (and 5 Life Support, 5 Points Armor, 5 on each Attribute, basic sensors, and a Pilot skill of 1. It's a cheap ride.).

Laboratories, Sick Bays

These are treated as resources. To keep it simple, assume that 5 CCP spent gives characters + 1 to skill rolls, with a general limit of +3. Labs DO take up Carrying Capacity AND require energy (to power all the blinky lights, of course.)

Brig

Secured and "hardened" compartments for locking up unruly passengers come as part of the standard complement of Life Support.

Backup Systems. It's always nice to keep an extra pair of mittens around. That, or Life Support. Captains may purchase an exact duplicate of any system for HALF PRICE, with the limitation that it cannot be used unless the first/primary system is destroyed or breaks down. Note that the duplicate takes up just as much Carrying Capacity as the original. Backups of small, critical systems are common: computers and life support. Backups of large systems (like Long-Range Missiles) are pretty rare.

Smuggling Compartments

These are specially camouflaged areas of the hull, invisible to the naked eye and possibly shielded from normal scanners. Captains who want to build a smuggling compartment into their ship pay for the size and the amount of stealth that it provides.

Escape Pods

This is standard equipment, included with Life Support.

Landing Gear

Again, standard. It's assumed that your ship has the ability to make planetfall: with landing gear, thrusters, the whole shebang. If that isn't true of your mighty interstellar dreadnought, take a -5 Character Flaw: cannot make planetary landings. For you, entering the atmosphere opens a whole new can of...dramatic possibilities.

Tractor Beam

This is bought as Telekinesis. A tractor beam is a cone of magneto-gravitic energy, similar to a shield. The cone can be focused to push or pull objects.

Self-Destruct

Are you really, really sure you want to push the red button? Self-destruct is a system (immune from normal combat damage) that basically causes the reactor to turn into a closed loop, feeding back on itself, and building up for a gi-normous explosion.

Add the Power Levels of the reactor for each turn of buildup. If it exceeds the reactor's original rating, there is a 50% chance that the reactor will fail and blow up. If not, it continues to build. Captains may set off a Reactor at any time, including pre-programming simple circumstances into the AI ("a fifteen minute delay," for example, or "if we are boarded by alien Thrall.")

When the reactor does blow, it inflicts damage equal to TWICE the total buildup to all ship's systems (hey, it's designed for maximum carnage and to leave nothing standing.) It also inflicts damage EQUAL to the buildup to any ship in the same hex on the combat map, and HALF that on neighboring hexes. (You don't want to stick around and watch!)

Putting It All Together

So, you've got your engines, your phased-plasma muon guns, now it's time to assemble it into a working ship. First, we'll look at how much space (no pun intended) your systems take up, then arrange what you've bought into a starship.

Carrying Capacity

This is the amount of "stuff" (the number of systems) that a ship can carry. After all, it's heavy machinery and electronics you're lugging around the cosmos! (Um, how much does antigravity weigh?) Carrying Capacity (or CC, for short) is equal to six times the ship's BODY score. Each basic (unmodified) Power Level or point of Attribute you bought for your starship takes up 1 point of CC.

Unused Carrying Capacity

Having excess Carrying Capacity (noted as Extra Structure, or ETC. on record sheets) is a *good* thing because it gets preference when rolling hit locations: give every other system in that location one number only, and give the leftover CC all other numbers. *Example: A compartment on a starship has the following items: a laser, some DEX, a radar array, and leftover Carrying Capacity. When this area is hit, the roll for which system takes the damage goes like this:*

```
1=laser,
2=DEX
3=radar
4-6=Excess Carrying Capacity.
```

Compartments

A starship's total Carrying Capacity is often divided up into different areas, called compartments. These can be arranged ANY WAY a player wants, although it is helpful for combat purposes if you can group them into 6 areas, to serve as six hit locations.

A small fighter might be arranged like so:

- Cockpit (Hit Location Area #1)
- Fuselage (#2)
- Engine (#3)
- Engine (#4)
- Wing (#5)
- Wing (#6)

While a larger starship might look like this:

- Bridge (#1)
- Crew Quarters (#2)
- Science/Medical (#3)
- Power Plant (#4)
- Engineering/Interstellar & STL Drives (#5)
- Flight Deck/Escape Pods (#6)

Weapon Pods

Sometimes, you just can't find a spot for everything inside the ship, so systems can be carried on the outside in pods, but they're prime targets for taking damage. Ships with external pods need TWO hit location rolls: First, check to see if a pod was hit. Assign each pod a number on a d6. Roll it. If the number shows up, the pod is hit. Example: your ship has 2 pods, a missile rack, and a sensor array. When this ship is hit in combat, a roll of 1 on a d6 hits the missiles, a 2 hits the radar, and 3-6 misses the pods--roll a normal Hit Location

The Carrying Capacity of external pods is limited to the value of the ship's BODY score.

Sample Ships

Check out the three sample starships: a snub fighter, a local patrol cruiser, and a tramp freighter ("the fastest tradeship in this sector—some modifications I made myself.")

Starship Combat Cheat Sheets

Sensor Lock Tables

To achieve a sensor lock:	To avoid someone else's sensor lock,
make a Perception roll,	make a Stealth roll,
using your ship's INT plus	using your ship's DEX plus…
+ Science or Ranged Weapons skill	+ Pilot skill (and taking an action to do so) + Bonuses for stealth +2 if coasting +2 if weapons are unpowered +2 if shields are unpowered +2 if under cover (asteroid or debris field) +4 if behind a planet +6 if behind a star +6 if in a nebula

Sensor Type and Success on Skill Roll	Used Passive Sensors Only (No Pinging), Roll made by 1-4	Active Sensor Roll 1-4 or Passive Sensor Roll 5+	Active Sensor Roll 5+ or Passive Sensor Roll 10+
Amount/ Quality of Information Gathered	 Defensive screens up or down? Gunports open or closed? Profile: type of vessel 	 General condition of defensive screens and armor General condition of weapons (powered or not, turrets active, etc.) General condition of the target (life signs? Operating normally?) 	 Exact level of defensive screens Exact condition of weapons Exact crew and vessel conditions

Which Skills?

Movement, Sensors: Your skills, the ship's stats

Guns: Your skills, your stats

Damage Sequence

1st. Hit Location

1 = Surface Damage:

(Every 5 points of damage reduces armor by 1)

- **2-5 = Normal Hit**, roll for location/compartment
- **6=Critical Hit!** (Roll again, and apply damage directly—no armor allowed)
- <u>2nd</u>. <u>Got Pods?</u> Roll to see if external pods were hit.

If not, roll hit location.

<u>3rd. Systems Roll:</u> roll to see which system in that location was affected

4th. Apply Damage

Subtract Armor, apply damage to Power Levels of affected system.

5th. Check for Breakdown

Has the damaged system been reduced by 50%?

Breakdown chance= 1 in 6

Checks are made with each additional Hit (2 in 6, then 3 in 6, etc.)

Magazine weapons that Breakdown have a 50% chance of Exploding, inflicting half remaining Hits

Reactors that break down have a 50% chance of exploding.

Excess damage? Roll again until compartment is emptied.

Starship Travel Table					
		LY	LY	Parsecs	Parsecs
	Ship's Speed	traveled	traveled	traveled per	traveled
PL	C/Light Speed	per Day	per Hr	Day	per Hr
1	1	Speed of	Light=186,2	282.4 miles per s	econd
2	1.5				
3	2.25				
4	3.5				
5	5.				
6	7.5				
7	11.5				
8	17				
9	25				
10	40				
11	60				
12	85				
13	130	.3			
14	200	.5			
15	300	.8			
16	450	1			
17	650	2		.5	
18	1,000	3		.75	
19	1,500	4		1.25	
20	2,250	6		2	
21	3,500	9		2.75	
22	5,000	13	.6	4.25	
23	7,500	20	.9	6.25	
24	11,500	30	1.25	10	
25	17,000	46	2	14	.6
26	25,000	69	3	20	.9
27	40,000	104	4	30	1.25
28	60,000	155	6.5	50	2
29	85,000	233	10	75	3
30	130,000	350	15	110	4.5

-6 to all rolls when...

Lost your computer Lost all your DEX Lost your crew Lost your sensors

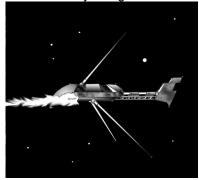
Ships of the Colonial Fleet

So, you want the best? Well, those ships are kept under strict lock and key by the Tochi and other "Patron" races. No, us poor humans get second or third best to choose from. The outlying Colonies of humanity were the first to benefit from their alliance with the alien Tochi, who gave them scraps of knowledge: advanced system design, material sciences and the like. The ships shown here reflect a fusion of Tochi and Human designs, easily recognized from their silhouettes: buglike, modular designs, often sporting advanced solar array "wings."



Fast Attack Corvette

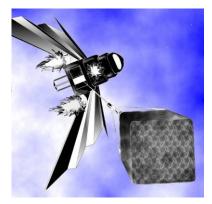
To the right is the FAC Northumberland and one of her shuttles. This boat's skippered by Captain San Rafael. She and her crew patrol the furthest reaches of the ColdDark, looking for signs of the renegade androids that haunt humanity.



Lancer

To the left is the mighty fine ship--fast and lightly armed, the Lancer serves as a courier, system defense boat and scout.





Dragonfly. Not fast, not pretty, but cheap

and reliable. The Dragonfly is the standard freighter throughout Colonized Space. Large Solar Wings, good lifting capacity. Model shown here includes an optional tail boom that can pivot and telescope out, giving the crew easy access to even the bulkiest cargos. In dangerous areas of the shipping lanes, the boom often serves double duty as a gun turret.



Forward Modules Standard Command Module

Patrol Command Module
Extended Cabin

FMMV: Falcon Multi-Modular Vehicle

This ship is designed to fill a variety of needs through interchangeable modules. The model shown here—flying for the Medical/Emergency Rescue-Corps—is equipped with a popular combination of elements. In front is the Command Module, which can act as a lifeboat, and is even capable of making planetary landings. Amidships is the Central Passenger Module, which has been customized and upgraded by the M/ERCs, creating a "flying emergency room." Finally, the aft Solar Wings and FTL Drive provide plenty of energy and mobility to make this vehicle an intersystem workhorse.

Center Modules

Passenger Cabin Freight Deck Planetary Defense Planetary Survey Planetary Assault:

Power Options

Standard Fusion Reactor Standard Solar Wings

Star Drive

Triad Ships

Ugggg-ly. Human designs usually have large, boxy silhouette created by the fusion reactors and engines. Simple but cost effective. My dad called these the "junkyard dogs" of space: not fancy or pretty, but cheap, tough dawgs that'll see you through. These boats aren't as advanced as Tochi/Colonial hybrids, but never discount the ingenuity of the human race. Earth's designers are gaining ground quickly.

These ships are manufactured at the Martian shipyards by various megacorporations, and you'll find these boats all over the Sol system, and scattered throughout the rest of Human Space.



and energy weapons.

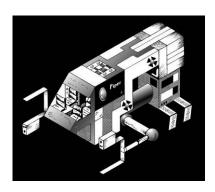
Bulk Freighter

What the big boys drive. This freighter hauls ungodly large cargo containers it's the pod slung below the ship. How many containers just depend on where it's going. The FTL Drive can't handle more than three such containers, although some crafty devils have worked out a way to link the drives of multiple freighters together and increase the number of cargo containers each can jump with. It's damn tricky, but it does work.

Cerberus

The pit bull of space. Too small to count as a capital ship, but fierce enough to get their attention. The Cerberus is designed to harass and to protect important strategic assets. The Cerberus shown here has a common configuration for local defense boats: missile racks





Clydesdale

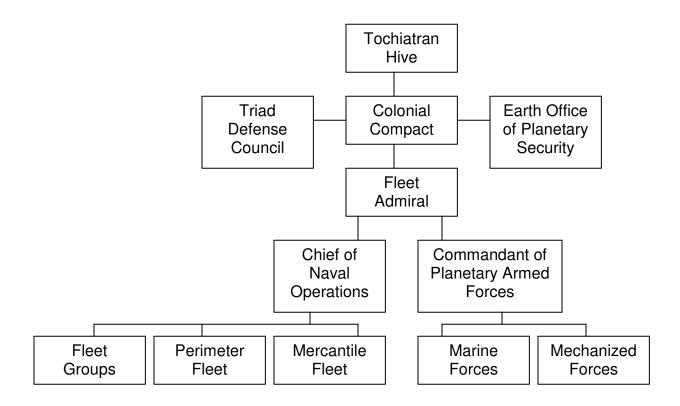
Tenders come in all shapes and sizes, but "The Clyde" is one of the most popular. Clyde is ready to work any space dock: laser-welders on both manipulators and a cargo clamp on its tail. Clydes can be outfitted with a variety of modules and gear, and can be seen working as shuttles, construction drones, and even as fighters. "The Jeep of Space."

Navies

Earth, Mars, the Moon, and each Colony maintain their own ships for local defense and security. The Medical/Emergency Rescue Corps is also called upon (though rarely) for military purposes. A larger interstellar navy, the Mutual Defense Force was created with the backing of the alien Tochi to handle larger threats and to add to their prestige as a Patron Race.

Mutual Defense Force

All uprisings, pirate raids and attacks from rogue alien races all underscored the need for an interstellar navy, and thus the Mutual Defense Force was born.



Fleet Ranks

Fleet/Planetary Command Ranks

Fleet Admiral/General Vice Admiral/Lt. General Captain/Colonel Commander/Lt. Colonel Lieutenant/Captain Ensign/Lieutenant

Non-Command Ranks

Master Chief Petty Officer/Chief Master Sergeant Petty Officer/Sergeant Journeyman/Corporal Apprentice/Private

Shipboard Ranks

Commanding Officer

Executive Officer (XO)
Department Heads

Combat Operations Officer
Combat Systems
Officer

Security Chief Communications Officer Navigation/Shipboard Operations

Engineering
Repair
Reactor
Drive

Supply Officer/Quartermaster

Medical Flight Officer

Captain Air Group (CAG) Support Craft Maintenance

Officer of the Deck

Big List O'Shipboard Duties

Stellar Cartography Traffic Controller

Crew Survival Equipmentman

Power Systems Mate Electronics Technician Fire Control Technician Machinist's Mate

Maintenance Administration

Ordinance Storekeeper

Structural Mechanic

Support Equipment Technician

Builder

Construction Electrician
Construction Mechanic
Cryptologic Technician
Data Processing Technician
Data Systems Technician
Dental Technician

Dental Technician
Disbursing Clerk
Electrician's Mate
Electronics Technician

Electronics Warfare Technician

Engineering Aide
Engineman
Equipment Operator
Fire Control Technician
Gunner's Mate
Hospital Corpsman

Hull Maintenance Technician Interior Communication Electrician

Illustrator-Draftsman Instrumentation Intelligence Specialist

Journalist Legalsman

Machinery Repairman Machinist's Mate Master-at-Arms

Mess Management Specialist

Mineman

Missile Technician

Molder Musiciain Counselor

Space Systems Technician Operations Specialist

Opticalman
Patternmaker
Personnel
Photographer's

Photographer's Mate Quartermaster

Radioman

Religious Program Specialist

Ships' Serviceman Signalman Sensor Technician Steelworker Storekeeper Utilitiesman

Weapons Technician

Yeoman

Real-World Ship Notes

Aircraft Carrier

80000 tons 1000 ft x 130 ft x 40 ft approx 60 planes/helicopters 5 missile launchers

Aircraft Carrier

94000 tons 1100 ft x 135 ft x 40 ft approx 90 planes/helicopters 3 missile launchers 3 guns 6286 crew

Battleship

58000 tons 888 ft x 108 ft x 38 ft Four support craft 48 missile launchers 32 guns

Landing Craft

87 (202 loaded) tons 88 ft x 47 ft x 3 ft 2 guns

Sub

7000 tons 360 ft x 33 ft x 32 ft 16 missiles

Sub

19000 tons 560 ft x 42 ft x 36 ft 24 missiles

Guided-missile frigate

3600 tons 445 ft x 45 ft x 20 ft 1 support craft 48 missile launchers 32 guns

Destroyer

8000 tons 563 ft x 55 ft x 19 ft 1 support craft var missile launchers, guns 232 enlisted

Amphibious Assault Ship

8000 tons 834 ft x 131 ft x 25 ft 26 support craft 8 guns 1800 Marines 45 tractors

Guided Missile Cruiser

7000 tons 567 ft x 55 ft x 31 ft 2 support craft var missile launchers, guns