Spacedock New & Alternative Tech from the net

These notes from the web for Spacedock are useful and have significant purpose. I have used only a few in modifications but keep a copy of them with the pages of the Spacedock that I have printed in the use of constructing starships and space stations.

STARSHIP SIZE TABLE

Starship	Space	Length	Beam	Height	SU	Mass Range
Size	Station	+ 2,000 m	+ 2,000 m	+2,000 m	+3,000 – 6,000	+10,000,000 to 20,000,000 metric tonnes
50	13	72,000 – 73,999	68,000 – 69,999 m	60,000 - 61,999 m	107,000 –193,000	310,000,000 – 519,999,999 metric tonnes
49	13	70,000 – 71,999	66,000 – 67,999 m	58,000 - 59,999 m	104,000 –187,000	300,000,000 – 499,999,999 metric tonnes
48	12	68,000 – 69,999 m	64,000 – 65,999 m	56,000 - 57,999 m	101,000 – 181,000	290,000,000 - 479,999,999 metric tonnes
47	12	66,000 – 67,999 m	62,000 – 63,999 m	54,000 - 55,999 m	98,000 – 175,000	280,000,000 – 459,999,999 metric tonnes
46	12	64,000 – 65,999 m	60,000 – 61,999 m	52,000 - 53,999 m	95,000 –169,000	270,000,000 – 439,999,999 metric tonnes
45	12	62,000 – 63,999 m	58,000 – 59,999 m	50,000 - 51,999 m	92,000 –163,000	260,000,000 – 419,999,999 metric tonnes
44	11	60,000 – 61,999 m	56,000 – 57,999 m	48,000 - 49,999 m	89,000 – 157,000	250,000,000 – 399,999,999 metric tonnes
43	11	58,000 – 59,999 m	54,000 – 55,999 m	46,000 - 47,999 m	86,000 – 151,000	240,000,000 – 379,999,999 metric tonnes
42	11	56,000 – 57,999 m	52,000 – 53,999 m	44,000 - 45,999 m	83,000 – 145,000	230,000,000 – 359,999,999 metric tonnes
41	11	54,000 – 55,999 m	50,000 – 51,999 m	42,000 - 43,999 m	80,000 – 139,000	220,000,000 – 339,999,999 metric tonnes
40	10	52,000 – 53,999 m	48,000 – 49,999 m	40,000 - 41,999 m	77,000 –133,000	210,000,000 – 319,999,999 metric tonnes
39	10	50,000 – 51,999 m	46,000 – 47,999 m	38,000 - 39,999 m	74,000 –127,000	200,000,000 – 299,999,999 metric tonnes
38	10	48,000 – 49,999 m	44,000 – 45,999 m	36,000 - 27,999 m	71,000 –121,000	190,000,000 – 279,999,999 metric tonnes
37	10	46,000 – 47,999 m	42,000 – 43,999 m	34,000 - 35,999 m	68,000 – 115,000	180,000,000 – 259,999,999 metric tonnes
36	9	44,000 – 45,999 m	40,000 – 41,999 m	32,000 - 33,999 m	65,000 –109,000	170,000,000 – 239,999,999 metric tonnes
35	9	42,000 – 43,999 m	38,000 – 39,999 m	30,000 - 31,999 m	62,000 – 103,000	160,000,000 – 219,999,999 metric tonnes
34	9	40,000 – 41,999 m	36,000 – 37,999 m	28,000 - 29,999 m	59,000 – 97,000	150,000,000 – 199,999,999 metric tonnes
33	9	38,000 – 39,999 m	34,000 – 35,999 m	26,000 - 27,999 m	56,000 – 91,000	140,000,000 – 179,999,999 metric tonnes
32	8	36,000 – 37,999 m	32,000 – 33,999 m	24,000 – 25,999 m	53,000 – 85,000	130,000,000 – 159,999,999 metric tonnes
31	8	34,000 – 35,999 m	30,000 – 31,999 m	22,000 – 23,999 m	50,000 –79,000	120,000,000 – 139,999,999 metric tonnes
30	8	32,000 – 33,999 m	28,000 – 29,999 m	20,000 – 21,999 m	47,000 – 73,000	110,000,000 – 119,999,999 metric tonnes
29	8	30,000 – 31,999 m	26,000 – 27,999 m	17,000 – 19,999 m	44,000 – 67,000	100,000,000 – 109,999,999 metric tonnes
28	7	28,000 – 29,999 m	24,000 – 25,999 m	15,000 – 16,999 m	41,000 – 61,000	90,000,000 – 99,999,999 metric tonnes
27	7	26,000 – 27,999 m	22,000 – 23,999 m	13,000 – 14,999 m	38,000 – 55,000	80,000,000 – 89,999,999 metric tonnes
26	7	24,000 – 25,999 m	20,000 – 21,999 m	11,000 – 12,999 m	35,000 – 49,000	70,000,000 – 79,999,999 metric tonnes
25	7	22,000 – 23,999 m	18,000 – 19,999 m	9,000 – 10,999 m	32,000 – 46,000	60,000,000 – 69,999,999 metric tonnes
24	6	20,000 – 21,999 m	16,000 – 17,999 m	7,000 – 8,999 m	29,000 – 40,000	50,000,000 – 59,999,999 metric tonnes
23	6	18,000 – 19,999 m	14,000 – 15,999 m	5,600 – 6,999 m	26,000 – 36,000	46,000,000 – 49,999,999 metric tonnes
22	6	16,000 – 17,999 m	12,000 – 13,999 m	4,600 – 5,599 m	23,000 – 32,000	42,000,000 – 45,999,999 metric tonnes
21	6	14,000 – 15,999 m	10,000 – 11,999 m	3,600 – 4,599 m	20,000 – 28,000	37,000,000 – 33,999,999 metric tonnes
20	5	12,000 – 13,999 m	8,000 – 9,999 m	3,000 – 3,599 m	17,000 – 24,000	34,000,000 – 37,999,999 metric tonnes
19	5	10,000 – 11,999 m	6,000 – 7,999 m	2,600 – 2,999 m	14,000 – 20,000	31,000,000 – 33,999,999 metric tonnes
18	5	8,000 – 9,999 m	4,000 – 5,999 m	2,100 – 2,599 m	11,000 – 17,000	27,000,000 – 30,999,999 metric tonnes
17	5	6,000 – 7,999 m	3,000 – 3,999 m	1,800 – 2,099 m	9,000 – 15,000	23,000,000 – 26,999,999 metric tonnes
16	4	5,000 – 5,999 m	2,500 – 2,999 m	1,500 – 1,799 m	7,000 – 11,000	20,000,000 – 22,999,999 metric tonnes
15	4	4,000 – 4,999 m	2000 – 2,499 m	1,200 – 1,499 m	5,000 – 8,000	17,000,000 – 19,999,999 metric tonnes
14	4	3,000 – 3,999 m	1,500 – 1,999 m	1,000 – 1,199 m	4,500 – 6,500	14,000,000 – 16,999,999 metric tonnes
13	4	2,000 – 2,999 m	1,200 – 1,499 m	800 – 999 m	3,500 – 5,000	12,000,000 – 13,999,999 metric tonnes
12	3	1,500 – 1,999 m	1000 – 1199 m	600 – 799 m	3,000 – 4,500	10,000,000 – 11,999,999 metric tonnes
11	3	1,000 – 1,499 m	800 – 999 m	400 – 599 m	2,750 – 4,000	8,000,000 – 9,999,999 metric tonnes
10	3	800 – 999 m	700 – 799 m	300 – 399 m	2,500 – 3,750	6,000,000 – 7,999,999 metric tonnes
9	3	700 – 799 m	550 – 699 m	200 – 299 m	2,250 – 3,500	5,000,000 – 5,999,999 metric tonnes
8	2	600 – 699 m	400 – 549 m	100 – 199 m	2,000 – 3,250	4,000,000 – 4,999,999 metric tonnes
7	2	400 – 599 m	200 – 399 m	80 – 150 m	1,500 - 2,750	2,000,000 – 3,999,999 metric tonnes
6	2	300 – 399 m	100 – 199 m	50 – 79 m	1,300 – 2,500	300,000 – 1,999,999 metric tonnes
5	2	150 – 299 m	50 – 99 m	31 – 49 m	900 – 1,900	200,000 – 500,000 metric tonnes
4	1	100-149 m	26-49 m	21-30 m	800 – 1,300	60,000 – 199,000 metric tonnes
3	1	51-99 m	11-25 m	6-20 m	600-1,000	31-60,000 metric tonnes
2	1	6-50 m	4-10 m	2-5 m	326 - 625	2.1 to 30 metric tonnes
1	1	1-5 m	1-4 m	Less than 2 m	Up to 325	Up to 2 metric tonnes

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Star Trek TOS "Ultimate Computer" Episode and sequels

The Dr. Richard Daystrum computer upgrade to the Constitution Class Enterprise was both a success and failure in its function. This is the place where there is room for disagreement but the systems would make a fleet of ships more a shadow fleet crewed by a minimal or no crew in a fight much like the Romulan Flee ships used in the Romulan/Earth Wars. For further reference see page 17 or Spacedock Volume 4 Ships of the Original Series Era sourcebook.

We ran a sequel to the episode the "Ultimate Computer." This is the data from that game. The adventure is basically a game where the reinvented M5 computer system is tested on another starship a Miranda class starship this time. It was marginally more successful than the original M5 was.

The M5 Multitronic Computer uprating (Original computer)
SU's Cost: 15 SU's for the computer
Power Cost: requires 10 power per round; see notes

This enhancement is available after 2268. The M5 Computer gives the ships that have it installed with the bonus of +2 to all actions taken as the computer is tied into all systems. Once the ship is equipped with the M5 computer the ship does not need to have a crew it usually had, but is lowered to ten percent of the crew (a crew of 430 would be reduced to 43 persons or less). The computer starts to act irrationally little by little after each day. One point of difficulty for each day the ship is under complete control. After the difficulty rating reaches fifteen the computer locks out the crew.

After several days the M5 Computer begins to pull more power adding five power each day and GM's discretion. The computer can handle up to 90 power.

The M5-A Multitronic Computer uprating (revamped Computer)
SU's Cost: 19 SU's
Power Cost: 15 power/round

This revamped version of the M5 is essentially the same as the prototype but has restrictions such as the M5-A is equipped with multiple cut offs and safety measures that prevent the computer from running wild as the Prototype computer had two decades earlier had. This new computer is available after 2288. Like the original M5 the M5-A has similar programming and functions. The neural engrams that were impressed on the M5-A were examined and chosen from thousands of applicants across the Federation and the Basic laws of computers servitude were impressed. Like the M5 the ship receives a bonus of +2 to all systems.

M5-B Multitronic Computer upraing
SU's Cost: 16 SU's
Power Cost: 15 power/round

The M5-B is similar in function to the standard M5 and M5-A but is tied into nearly all systems but the Tactical Systems and Navigation Systems and has one main shut off that can be thrown by the flip of a single switch cutting off all power to the system. Its basic function is to accelerate all computer functions that the main computer commands. It is available in 2290

Starship Automation (reference Star Trek III the Search for Spock)
SU's Cost: size x 20
Power Cost: size x 2

This allows the ship to be piloted by a minimal crew for an extended period of time if needed with a bonus of 5. The automation is touchy and can easily be disabled as it is tied into nearly all systems mainly it is used for the navigation and engines. With each additional system that is being run via the automation the difficulty increases by three till the failure. Then the Automation system is damaged and must be repaired before the system can be used. This can be installed to ferry a ship back to a base where it may be repaired. This ignores the jury-rigged systems and already established damage as long as that system is running, any new damage adds ten to the difficulty instantly. Most all of all the SU's must be fabricated with the ships Industrial Fabrications Units and/or Replicators.

Note: ships of the mid 24th century already have much of this automation already installed into it where a single person can pilot the largest of starships for short trips as long as there is no problems.

COLLECTION OF STARSHIP ARMOR

I generated this up a few years ago, I thought you could use to answer the questions of the Monotanium Armor, so I dug this up with the rules I generated up. I worked up the armor listing at the bottom. So far I have never shared it with anyone for use. I had came up with it as armor for an Automated Warship that has no crew and operated off an AI computer. This AI would have been on the rampage destroying system after system. Instead of using this armor, I used the Ablative Armor to make the battle a little smoother.

The optional rule I have written below would make a nice addition to a vessels in game play. The reason is self evident when you read the rules.

I believe that this Armor could be used in not only Star Trek but Star Wars, and in hind sight the construction of the Battlestar Galactica universe and the Armor of Andromeda ships. The Battlestar Galactica would have an armor of 80 <32> but would still be vulnerable in the landing bays and engines, not to mention the guns with standard resistance. The Andromeda would have an armor of 200 <80>. As for Babylon 5, I would give some ships heavier armor such as the Minbari Warships (200), and the Earth Force Omega Destroyers (150) a little less armor and the Hyperion Heavy Cruiser (120) a little less than that.

Rules: No starship can have more than one Armor that the ships can have installed. Shields and Polarized Hull Plating and a Single Armor to the ship. Some ships have a secondary shielding that is second line of defense.

Armor and Sensor Interference

All armor increases the difficulty in scanning the interior of the ship some armor has minor interference and others have greater interference. Most armor's do not have any sensor interference that would make trouble for ships with a good set of sensors.

Double and Triple Ablative Armor Resistance

The Armor costs the same as same as designing regular Ablative armor but instead of standard resistance of 10 for the armor the armor now has 20 resistance costing twice as much than the standard armor and the same for the Triple Ablative armor. The armor tops out at 1500 and the cost can be higher than.

The armor has plenty of defenses to be used in replacement to the defense of a ship that may not have a shielding system. (This is for such vessels as the Vessels from Battlestar Galactica.)

STARSHIP ARMOR

SU cost: same as the ablative armor plus 15 SU's x every +10 point of resistance. With a maximum of +1200 resistance.

Power cost: none.

Financial Cost: 10 bars of Latinum per 25 points of resistance times the size of the ship that the armor is being installed on.

Sensor Difficulty: +2

Here is a piece of tech that could be useful in a starship. The armor is plated over the hull of the standard hull acting as a resistance against the incoming weapons fire of a weapon. Once damaged the armor is gone until replaced. This armor is plated onto the hull it has a resistance heavier than the hull and it's resistance. This armor is not compatible with the Ablative Armor one or the other. The armor acts as the resistance does in the shields. The Armor can take a hit but does not lose and resistance from the attack so the next hit as much resistance as before. Once the armor is penetrated the armor is gone from that spot till the armor is replaced in a Spacedock repair.

This armor is only a supplement to the shields not a complete replacement of the shields. However the armor does not hamper the shields deployment. Some species that have not generated the ability to produce a shields would have a mild version of the shields.

Note: the early Earth Starfleet circa mid 22nd century used Polarized Hull Plating that is generated like shields with no shield grids. They have resistance burning off with each hit from an attacking weapon.

Optional rule: The armor can only be attached to a hull with no less than 6 for outer hull resistance. With less the vessel may not be able to travel at warp speed without losing its outer hull from the stress of travel. A success roll for traveling must be made. Every round of travel at warp and the higher the warp the more difficult the success.

Personal Note: This armor is nearly impenetrable and has benefits and drawbacks in battles. This armor can be penetrated with a simultaneous strike of weapons fire on one spot in the armor. Once the hole has been made it allows other shots to strike the softer insides of the ship. As for the armor, that is here is designed for an automated war machine that has gone on a rampage in Federation space cutting a swath through the sector.

Monotanium Armor Plating

SU's cost: size x 2
Power cost: None

The use of Monotanium Plating is as armor plating and provides an additional +10 the existing resistance outer hull protection only. This is only 2.5% of the natural Pure Monotanium. The armor can interfere with the sensor scans into the interior of a starship with an additional +2 difficulty. The plating resists many other forms of energy such as an Ion Storm better than the shields would but the turbulent actives of an Ion storm throw the contents of the ship around like small toys. These plates are prefabricated to fit the ship's hull configuration and can be replaced. This armor can be placed under the Ablative Armor as an additional shielding and even prevents radiation emissions.

Even the though the Cardassians have this armor it is used by a dozen other species across the galaxy and the armor is readily available through commercial dealers. The Standard Monotanium Plating costs 8 bars of Gold Press Latium per SU.

Note this is not pure Monotanium Plating where the Resistance is +400 and is very expensive to purchase. The Armor is highly refined and nearly as hard to refine and make an alloy like Neutronium. The Monotanium Plating can be made more pure by adding in more pure Monotanium into the armor.

Monotanium Alloy Armor Plating

SU's cost: size x 3
Power cost: None

Like the standard Monotanium Armor Plating the mixing of Monotanium and other materials such as duranium, tritium and other such materials creating an armor +40 resistance to the outer hull only. This is 10% of the resistance of pure Monotanium resistance. A ship that is armored with this makes the hull a lot more resistance to incoming weapons fire. The Monotanium Alloy Armor Plating costs 12 bars of Gold Pressed Latium per SU.

Dense Monotanium Alloy Armor Plating

SU's cost: Size x 10
Power cost: none

The Dense Monotanium Alloy Armor Plating is available to ships of the 26th century and has a resistance of +100 resistances and is attached to the exterior hull of the ship. This alloy is a composite of many different materials such as Duranium, Tritanium, Titianium, Kelenite and many other such starship construction minerals that are used in starship construction. The armor has appeared in species and races that are in the 24th century.

Pure Monotanium Armor Plating

Resistance: +400
SU's Cost: 20 x Size (no smaller than size 3)
Sensor Difficulty: +2
Gold Pressed Latinum Cost: 40 x size

Note that much of this came notes here for the Monotanium Armor I have above, came from somewhere off the internet and I generated the armor notes to be used by my group. The Isokinetic Cannon in the Star Trek Voyager "Retrospect" penetrated the Monotanium Armor in a single shot. I saw the Isokinetic Cannon write up on this web site I used the destructive capacity to generate the armor above.

The Monotanium Armor installed on the hull of a starship the size of a Galaxy-class. The Armor would cost the owner 1280 bars of Latinum. I don't think that a Galaxy-class would look good with Armor.

The nice part of this armor is that it can take hit after hit until the armor is hit by a weapon that has damage that is more than its resistance per round of play. In my private testing of the armor it resisted damage making the ship nearly impregnable till there was a triple hit of a Phaser blasting the armor away. Once the breach was made the ship became more vulnerable than before the armor plating. In this test I had used a Constitution- and Miranda straight from the pages Spacedock The original series net book with the exception both ships had been outfitted with 300 <120> of armor. Once there is a hole in the armor, a couple of photon torpedoes would hollow out the interior of the ship efficiently. This happens to be the longest testing of ships I have ever done.

Use with caution as a vessel equipped with such armor is a warship that is capable of marching across the battlefield without even being stopped. As was the idea behind the Automated Warship mentioned above. I choose the 1200 cut off as the impact of seven photon torpedoes or five hits from top listed disruptor weapons to bring down.

For regular Lug Starships the same set up is available just scaled down to fit the ships as would be done with any other starship designs such as the ablative armor and polarized armor. I have not used this or even looked at placing this on any ship of this type.

Neutronium is the only armor that is still as stated for cost but I made the change that it is with the resistance of 4000. Only several ships are capable of damaging armor of this type each hitting the same target at the same time. It would take twenty simultaneous hit from type ten phasers to damage to the armor. Sensor

Difficulty: +15 thismakes the interiors of the ship impossible to scan.

Here is a piece of armoring that I wrote up but I don't think I shared. I share it here as part of the armor above. This Armor is also on the Babylon 5 Ship Excalibur and was called bio-shielding working the same as the Dispersive Armor. The difference is that the armor does not burn off from each hit.

I used this armor on the White star Fleet and the Excalibur original write-ups that I generated for the Babylon 5 vs. Star Trek battles. Instead of Dispersive Armor I used Ablative Armor for these ships. I would also include the Dispersive Armor with the optional rule requiring more than 6 resistance on the outer hull.

Dispersive Armor
Taken from a Star Trek Enterprise fourth season episode "augments." Doctor Soong says something about the Klingon Bird of Prey having Dispersive Armor.

Dispersive Armor, an early Klingon version of ablative Armor, like ablative armor it disperses a substantial amount of Directed energy weapons fire when conventional shielding is not available. Due to the unreliability of shields the dispersive armor was installed on many vessels to protect the ship.

Some older Klingon vessels still have Dispersive Armor installed and as well some ship commanders may also have some of this armor installed on newer vessels as a secondary defensive shield

Type I - Dispersive Armor dispels 60% of directed energy, up to 100 damage with a cost of 3 x size in SU's. Circa mid 22nd century. Sensor Difficulty: +2

Type II - Dispersive Armor dispels 70% of directed energy, up to 150 damage with a cost of 4 x size in SU's. Circa late 22nd to early 23rd century. Sensor Difficulty: +2

Type III – Dispersive Armor dispels 80% of directed energy, up to 200 damage with cost of 5 x size in SU's. Circa mid 23rd century to mid 24th Century. Sensor Difficulty: +3

Type IV – Dispersive Armor dispels 90% of directed energy, and up to 400 damage with a cost of 6 x size in SU's. Circa 24th century on. Sensor Difficulty: +3

Type V – Dispersive Armor dispels 95% of directed energy, and up to 600 damage with a cost of 8 x size in SU's. Circa 25th century on. Sensor Difficulty: +4

Type VI – Dispersive Armor dispels 95% of directed energy, and up to 800 damage with a cost of 7 x size in SU's. Circa 26th century on. Sensor Difficulty: +4

Babylon 5 Dispersive Armor
The Dispersive Armor in the Babylon 5 universe is below. The Armor is mostly for the Minbari Federation and Interstellar Alliance and some of the lesser races. Earth Alliance would use mostly the Ablative armor and the above armor.

Babylon 5 – Dispersive Armor dispels 90% of directed energy, up to 500 damage with a cost of 6 x size in SU's. Circa 23rd century on. Sensor Difficulty: +3

STAR TREK VOYAGER
Endgame's Ablative Armor Generators
Since the generators in the show seemed to be mostly external and they did not have a very hard time installing them I make them to be size x 1.5 in addition to the Standard Shields. Resistance is increased by three times to what it was.

A galaxy class shield of normal 1200 protection would increase to 3600 protection with a threshold that would be 1200 from what it had been 400. This would require three times the attack during a single round to damage the ship in a battle.

The sensor difficulty increases preventing most sensors from scanning the interior of the ship. Sensor Difficulty +5

Armors from 20D Future sourcebook
Once this armor is gone, a portion an equal portion of the armor is requires it to be replaced over that spot. Yet the armor over another section of the ship is untouched. A single point of damage is easy enough to repair and requires less time to make a mends to the hull. Each of these armor have an unusual and unique aspect to their features. These armors are installable on nearly any starship that can be generated. Some of these armors are intended to used as shielding by early space travelers and some of these are intended to be used by more advanced space travelers.

Multi-Alloy Plating Armor
Multi-Alloy plating is made of advanced metal alloys engineered for its high resistance a low weights.
SU's cost: 2 x size
Resistance +70 to standard resistance to outer hull (A ship with a outer hull resistance of 10 and the armor has a resistance of 80 against in coming weapons fire.)
Sensor Difficulty: +2

Alloy Plating Armor

The typical Alloy plating is made of advanced metal alloys engineered for high resistance to attacks at relatively low weights. Some alien races use not only the standard use of alloys but add in additional materials that are not normally thought of as armor plating materials.
SU's cost: 2 x size + 4 per every 10 points of armor up to 600 armor with a resistance of 20.
Sensor Difficulty: +2

Variant to Armor

Resistance: +5 to standard resistance to outer hull (A ship with resistance 10 and the armor has a resistance of 15)
SU Cost: 6 SU's per additional point of damage resistance.
Sensor Difficulty: +3

Polymeric Armor

Polymeric armor is made up of advanced polymers, such as carbon fiber and high-grade fiberglass. It is relatively cheap and light, but does not offer tremendous protection to a ship.
SU's Cost: 3 SU's per every 10 of resistance
Resistance: +40 to outer hull resistance (A ship with resistance 10 and the armor has a resistance of 50)
Sensor Difficulty: +2

Vanadium Armor

Interlocking plates of light vanadium alloy absorb a respectable amount of damage and are easy to mold to a starship's hull
Su's Cost: size X 2 SU's
Absorbs 50% of energy that hits to the hull up to 250 energy.
Sensor Difficulty: +2

Cerametal Armor

Combining the heat-resistant qualities of tough ceramics with the ductile strength of metal, cerametal armor offers a good compromise between protection and economy.
SU's Cost 1.5 x size
Resistance: +80 to outer hull (A ship with resistance 10 and the armor has a resistance of 90)
Sensor Difficulty: +2

Deflective Armor

Deflective armor is composed of a shiny, light, flexible polymer especially good at neutralizing energy damage but less effective against ballistic attacks. The deflective armor deflects energy away to a percent.
SU's Cost 1.5 x size + 10
Resistance: deflects 100% energy however the armor does not do any good from a missile weapons attack.
(*The interior of an asteroid was lined with this armor in the Delta Quadrant by the Vidiians species. This material reflected a phaser beam around the interior of the asteroid to detect the Vidiian ship that they were chasing.*)
Sensor Difficulty: +5

NEUTRONITE

Neutronite is a tough steel alloy into which a "weave" of free neutrons has been pressed. It is extremely resilient but also incredibly massive, weighing about five times more than a similar volume of lead.
Su's Cost: 2 x size
Resistance: +20 to outer hull resistance.
Sensor Difficulty: +4

Ablative Armor

This silvery, reflective armor is amazingly thin, yet has tremendous tensile strength and the ability to absorb damage better than most kinds of armor plating. These are just like the standard spacedock has it designed.

I have generated five versions of the Ablative Armor and type II is equal to that of Spacedock's original Ablative Armor. Type one is a lighter resistance armor and the third fourth and fifth is a harder resistance armor that only more advanced species are capable of generating and installing on their ships.

Some of these armor's are far more advanced than other materials, are available but certain years only, and have less material usage about them as resistance increases. Much of the material are replicated and capable of generating a specific armor type for a ship and others require the original material to create the armor.

Ablative Armor Type I (Early 24th century)
5 points per 1 SU's Maximum of 2000
Resistance: +6
Sensor Difficulty: +2

Ablative Armor Type II (mid 24th Century)
10 points per 2 SU's Maximum of 1500
Resistance: +10
Sensor Difficulty: +3

Ablative Armor Type III (late 24th century 2380's)
5 points per 2 SU's Maximum of 1000
Resistance: +15
Sensor Difficulty: +4

Ablative Armor Type IV (Early 25th century 2400's)
5 points per 3 SU's Maximum of 800
Resistance: +20
Sensor Difficulty: +5

Ablative Armor Type V (Early 25th century 2425)

5 points per 4 SU's Maximum of 600
Resistance: +25
Sensor Difficulty: +5

Ablative Armor Type VI (Mid 25th century 2450)
5 points per 6 SU's Maximum of 600
Resistance: +30
Sensor Difficulty: +5

Ablative Armor Type VII (Late Quarter 25th century 2475)
4 points per 8 SU's Maximum of 400
Resistance: +40
Sensor Difficulty: +6

NANOFLUIDIC Armor
    Consisting of a thick layer of gel-like fluid sandwiched in a neutronite structure, nanofluidic armor is "smart" armor—it concentrates at the point of impact to blunt physical blows and circulates around heat sources to dissipate energy.
10 points of armor per 3 SU's
Resistance: +120 to outer hull resistance (A ship with resistance 10 and the armor has a resistance of 130)
Sensor Difficulty: +1

Polarized Hull Plating
    The polarization of the exterior armor plating was one of Earths earliest method of defending against attack. The Polarized Hull Plating is generated much the same a shields but do not have shield grid boosting has a threshhold no more than 40% of the generated protections. Once shields where perfected the defensive systems evolved into the useable function the Polarized Hull Plating was discarded.
    The Polarized plating can be enhanced by reworking the system. Most Polarized Hull Plating is not rated higher than 300 protections to the ship in the 22nd century.
    Example of the Polarized Hull Plating is Enterprise NX-01 at the launch of

Polarized Hull Plating (Forward, Aft, Port, Starboard)
<17 x 4 = 68>
Polarized Hull Plating Generator: Class 1 (Protection 200) [20 Power/Polarized Hull Plating/round]
Polarized Hull Plating grid: N/A
Subspace Field Distortion Amplifiers: Class Beta (Threshold 80)
Recharging System: Class 0 (90 seconds)

    An example of the Polarized Hull Plating at the refit of the Enterprise NX-01

Polarized Hull Plating (Forward, Aft, Port, Starboard)
<18 x 4 = 72>
Polarized Hull Plating Generator: Class 1 (Protection 250) [25 Power/Polarized Hull Plating/round]
Polarized Hull Plating grid: N/A
Subspace Field Distortion Amplifiers: Class Beta (Threshold 100)
Recharging System: Class 0 (90 seconds)

Reinforced Bulkheads
    The reinforced bulkheads are for ships that are military oriented vessels or undergoing extreme stresses to the hull. This is the addition of metal framework and plating to the inner and outer hulls to prevent breaches. The cost is expensive for the addition of the resistance but some ships or space stations could receive a little additional resistance that could be beneficial in a battle adding a little protection. The resistance is also increased to the structural integrity field; this is without any cost in power to the system. The strain on the hull can cause damage and stabilized the ships and the reinforce hull gives the ship a few precious moments when there is dangerous stresses on the ship could tear the vessel apart. This is useful for smaller ships looking to place armor to the hulls when their hulls are not capable of handling the armor naturally.

Class I (Commonly available) increase of 10% resistance cost in SU's is outer and inner hull added together, time one equals the additional resistance to the hull.

Class II (available but moderately restricted) increase of 20% resistance cost in SU's is outer and inner hull added together, time one and half equals the additional resistance to the hull.

Class III (Restricted to military only) increase of 30% resistance cost in SU's is outer and inner hull added together, time two equals the additional resistance to the hull.

Example: Galaxy Class Explorer with a reinforced bulkhead
Hull outer <32>
Hull Inner <32>
Resistance outer hull: 8 + (30%) = 11 <9>
Resistance Inner Hull: 8 + (30%) = 11 <9>
Reinforce Bulkheads Class III (30%) <128>

Structural integrity field [1 power/10 protection/round]
Main: class 5 (Protection 80 (104)/120 (156)) <32>
Backup 1: Class 5 (Protection 40 (52)) <16>
Backup 2: Class 5 (Protection 40 (52)) <16>

Power Charging and Reserve power

I have seen references to charging the phasers and there is also references to the power reserve, so here is my take that could be incorporated into the spacedock systems without too much add SU's on most ships. Charging the phasers could be a reference to a power reserve or storage located next to each phaser bank emitter capable of holding one or two shot of full power or two or four half-powered shots. These reserves would be high capacity batteries that can hold the power for use in combat or if in need to feed back into the system as needed.

When not in need these systems are not active, they need to be charged before use allowing a vessel with low power to have a fighting chance. As long as a ship has a surplus of power in even an emergency, the batteries can be charged for a battle allowing for a few shots. After the battle the power could be fed back to supplement emergency power in full or during temporary situations.

For TOS era and before including the pre TNG era the batteries would cost 1 SU per every 20 power of storage. In addition, for the Pre TNG and later the batteries would cost 1 SU per 40 power of storage. Each ship may have the power of at least one shot per battery.

For example, the power fed back from a battery holding one full power phaser bank shot and could supplement power for just less than one minute (eleven rounds of play) for sickbay and reserve life support systems. The power can be channeled to other systems in an emergency such as facilitators and replicators to generate replacement parts for the ship if it is damaged. The shields can be supplemented with the batteries for a short time.

This would work well for the final version of the Babylon 5 Victory-class Destroyer with its powerful weapon. It takes so many rounds to charge the weapon before firing the Vorlon based weapon before it can be fired again.

I personally like the idea of having a power reserve capable of firing two full powered shots but due to the system allows only half power or one-third powered phaser for combat.

Then I also think that the power that is in the EPS could be drained to power the ship even after the failure of the other emergency powers. The power can be used to sustain the ship in and emergency. Our group have used this couple of times in emergencies.

We also had the ship run out of anti matter and they came up with the idea to remove the antimatter from the Photon Torpedoes and use it in the warp engines. A full load of Photon Torpedoes could allow a ship to return or meet up with another ship or starbase to refuel the Antimatter.

The Cost in Gold Pressed Latinum

If adding the armor after the ship has left a spacedock the ship will be charged for the armors installation (see below). The starship is a set amount reference to the page 18 of the Spacedock source book. So a ship with 500 ablative armor would equal to 1000 bars of Gold Pressed Latinum.

As for the cost of installation of any materials or armor to the hull, the costs would be equal as much of the cost of materials or even twice or three times the cost of the materials depending on the shipyard doing the work.

Latinum conversion
100 Slips to equals 1 strips
20 strips to equals 1 bar
50 bars to equal to 1 brick

Alien Technology -- Star Trek Voyager

Matter Conversion Cloak
SU's Cost: 50 x size
Power Cost: 25 x size used for the time of change only

The matter conversion cloak generates an exterior and hull that appears to be the ship that is another species vessel. As in the case of the USS Dauntless encounter by the Federation Starship Voyager in the Delta Quadrant it appeared to be an advanced starship sent to aid the starship Voyager turned out to be an alien vessel intent on causing the demise of the crew of Voyager. The overall shape of the ship does not change but when the Matter Conversion Cloak the interior and exterior surfaces reveal what they really look like back the original appearance. The overall appearance is the same with the ship hiding in plan sight.

The cloak is alien technology that is easily capable of copying and making an appearance of any vessel that it has scanned. Only a highly sensitive sensor scans (strength Class 10 with gain Beta) can tell the difference between the real hull and the artificial hull of a starship utilizing the cloak, where a general scan would be written off as just a sensor anomaly. Only real test with a hand sensor can detect that the anomaly is artificial in origins.

The original technology dates back to the age where they alien race was under the continual assault by the Borg determined to assimilate the species. The technology was dismissed by the Borg as it was useless to them. Few species have ever used this technology as it is a power hungry device. Few starships can produce the amount of power needed to make the conversion. The only drawback is that the device cannot change the hull

material to generate armor as it can only change to material of the same density into a slight different shape and appearance.

Planetary City or Colony Quarters: The city quarters are twice as large as those found on a starship and space stations as they are apartments and are designed for long term residence and even longer. The costs are the same but are for those that are much larger. These follow as Spartan a single bachelor pad, basic a beginning family home (two to three persons one being a child); expanded (four to five); luxury is a large suite of rooms a family can live there (four to six) and the unusual quarters are the same as they are on starships but can handle a family like the expanded.

Large Scale Equipment

Most of these devices are no larger than half a shuttlepod and are easily placed where they cannot be detected such as an asteroid field where there is plenty of debris that can hid the devices until it is too late. In a combination these devices are capable of becoming a deadly weapon trapping a vessel and killing its crew.

Energy Draining Equipment

Power Cost: 10 power per round
SU's Cost: 50

The energy draining equipment absorbs fifty power points from any starship within one Mu of the device building by one power every five minutes up to fifty power. The energy is then shunted off to some sort of device that can utilize the power. The type of energy is not always the same warp plasma, impulse fusion, and phaser energy. This energy draining equipment is self starting and only needs a starship to move into the area and begin draining the power.

In conjunction with other devices the energy drain becomes a starship crippling device and soon the ship is trapped no matter how much power it generates. More power usually awakens other devices draining more power.

Radiation Emitters

Power Cost: 40 power per round
SU's Cost: 50

These radiation Emitters produce a deadly form of radiation from the emitters that is lethal to majority of life forms that come in contact with the radiation. These types of weapons are considered by most civilized people as a weapon of last resort. In con junction with the energy draining equipment the devices are the perfect weapon. Radiation builds one radiation level per five minutes by fifty radiation levels the radiation is deadly to most species.

Starfleet Medical has an anti radiation medicine that provides a protection up to seventy-five radiation levels. This medicine works on the majority of humanoid species. This medicine is freely distributed to any and all species that are in need.

Laser Net

Power Cost: 48 per round
SU's Cost: 24

The laser net activates and any ship flying thought the net is sliced to pieces during the flight. The net lasts up to fifty rounds. The laser net is hard to detect and requires a good sensor scan by an expert that knows what to look for. The net is a crisscrossing net of twelve Sorac class lasers that is place in an opening where a ship can fly through. It is mostly used against shuttles and slightly large ships.

Many pirates use the net to stop pursuers and slice a ship into debris and allows the ship to escape. The lasers leave debris that can be used to manufacture other ships. At speed the ship is sliced in a single round.

Tractor Beam Net

Power cost: double the cost of six class tractor beam emitters
SU's Cost: double the cost of six class tractor beam emitters per class of use.

This net is capable of catching a starship while at low warp speed (no faster than warp two) and stop it in its tracks. The tractor beam emitters are phased matched and capable of holding a ship, while being held by the tractor beams all weapons are restricted as are the torpedo launchers and shields are unless the shields are already deployed at the time of capture. A roll to determine whether the inertial dampeners prevent the crew from being killed by the sudden deceleration of speed or being thrown against the forward bulk heads.

Once caught the ship's crew can escape with the use of a modulated shield that with break the hold on the ship. The shields must already be deployed when the ship is caught.

Different Warp Nacelle Configurations

These following adoptions to the Spacedock Rules are compatible with Pre-Enterprise, Enterprise, Post-Enterprise, Pre-TOS, TOS, Post-TOS, Pre-TNG, TNG, Post-TNG, DS9, Voyager, and Alternate Time Line Eras of starship construction. Some designs are species specific and others are Empire general or multiple species us depending on the time of their birth of Warp Drive.

Costs of replacing and time

The time required to remove and replace a nacelle depends on the type of Warp Coils placement, as does the cost. The Embedded styles of warp nacelles cost more than those that are on the exterior or on Support Pylons.

Most starships and even shuttles have multiple warp coils that are divided down into segments of two halves and are in line of multiple coils per warp nacelles. The coils are made up of multiple layers of materials that allow the coils

The numbers of coils is equal to the division of the nacelle SU's cost will generate the number of Warp Coils that a single nacelle will hold some many nacelles. A Galaxy class has 32 in both nacelles so size time 2 will determine the number in a single nacelle. The TOS era would be multiplying by three and adding two providing twenty coils for the ship. (*Note this is just an option to the house rules.*)

The extraction and replacement of the nacelle costs a set amount reference to the page 18 of the Spacedock source book. One coil of the Galaxy-class nacelle would easily cost 34 bars of Gold Pressed Latinum. Moreover, it would cost three times as much for the replacement of the coils. The replacement of the embedded nacelle would be several time the cost of the individual nacelle.

The starship fleets such as the Federation, Romulan, Klingon and Cardassian has shipyards where the cost of the maintenance would be absorbed by the yard facilities. Civilian shipyards would charge the owner or the customers for the work.

The time to replace a coil of the nacelle takes one hour per one SU to make the repairs. Using the spacedock rule of base time of 10 minutes to one hour per 1-3 SU's for repairs on page 165 of Spacedock. I set an arbitrary time of one hour per 1 SU do to the size of a warp coil. So the replacements of a warp coil would take 3.8 hours but it would also require the time to remove the nacelles outer coating of 32 SU's so time would increase to 36.5 hours roughly just under one and half days for a single crew working a single coil. While the use of multiple engineering crews can reduce the time for the installation of the warp coils using spacedock rules. The work on multiple coils would require additional time or crews. Three separate coils would require 4.5 days to

perform the work. This is adjustable for the size of the ship as such a shuttle would take only hours. If the like the starship Voyager preformed in an episode the coil is recoated the time is increased to such as one hour for every two SU's, yet the manufacture of a new coil would facilitate a ship yard and the construction of a coil would take days. Embedded Nacelles and partly embedded nacelles require twice the time to get the coils. Fully embedded nacelles require twice the time to access the nacelles and partly embedded nacelles such as the Starship Defiant has partly embedded nacelles would require one and half times to access the coils.

Notes: The GM can increase the time to make the coil change out by assign the resistance to the ship into the figure such as a galaxy class has hull resistance of 8 for inner and outer hull. Therefore, the replacement time to the single coil would take an extra eight hours and it would now be 44.5 hours to make the change of a single coil.

Single and Multiple Warp Nacelles

As of late several of our players in the last month who have designed ships that are noted with having one, three, four, and five then even a six nacelle designed vessels. This had become an out of control problem of some truly goofy looking starships and spacedock designs. I really do not care what the design is or looks like until the design gets too out of balance in the game terms and gives a too big of advantage to one side.

The single nacelle versions of the starships have been around for more than three decades (Saladin/Hermes-classes) and the same with the triple nacelle design (Federation-class). In the past, we have played with these vessels and even just recently, we played a three interconnected missions with a Constellation-class, however I have never allowed more than four nacelles in the design.

To simulate single- or triple-nacelle designs or even more nacelles, the following optional rules I have generated out of similar ones found on this forum for the Coda system that someone expanded out. I made changes to the system to facilitate its use in spacedock. Their hand drawn sketches looked cool but in combat, I

decided that they were given an advantage that the others did not have.

With the following rules that we have instituted below are the rules and examples generated out of a standard Galaxy-class Explorer nacelles. I have altered the nacelles to show the versions changes in the SU's cost.

Warp Nacelles are important parts to the ships that can be used on the ships. There are only a few ships that do not have warp nacelles where they are only in the system use. The ship is used for short-range transports only or cargo hauling or they have a low warp engines that limit the range to a light-years.

Example: *Base line: Twin Warp Drive Nacelles: Type 6D <105>*
Speed: 6.0/9.2/9.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles
PIS: Type G (10 hours of Maximum warp) <14>

The nacelles are designed to work in sync with one another. Even though the ships have been set up with multiple nacelles, the loss of a nacelles reduced the ships speeds in accordance to the Spacedocks.

Standard Pair of Warp Nacelles
Mod: -5
Crew: 0%
Using the nacelles Table (page 35), compared the nacelles' current remaining SUs and finding the nacelle type on the table which most closely match it (round up if necessary). That indicates the nacelles' current warp capability. The Narrator rolls 1d6 at 25%, 50%, and 75% damage; increase the chance to 1-5). When the nacelles have been damaged to 50%, roll 1d6. A 1-2 indicated that at least one nacelle explodes causing its normal full SUs to the ship in damage (only Resistance protects against this) unless an astute crewmember makes a Routine (5) shipboard systems (any) Test to eject the nacelles just before they explode. Roll again every 10% damage thereafter. The Crew figure for nacelles are usually 0, since few if any people work in them, but of course any secondary explosion could kill hundred of the crewmembers. If a nacelle is destroyed, a ship can no longer maintain a stable warp field, and thus cannot attain warp speed.

Standard Twin Nacelles
• Cost is generated the same the normal nacelle displayed as the baseline above. The cost stays as it is displayed.
• There is not additional benefits or drawbacks to having standard twin nacelles.
• The nacelles usually are placed on the end of a nacelle pylon. Leaving it an exposed target of plus one to any attack.

Most starships are designed with the double nacelles providing them with stable warp fields for longer periods in strenuous periods of use.

Single-Nacelle Warp Drive
• Costs 75% of SU's for that of a standard twin-nacelle system.
• Additionally, the reduction of one full warp speed factor – 1.0 (the single warp factor reduction can be broken down across the standard/sustainable/maximum such as -.3/-.3/-.4 or some similar combination or even all to one of the three, the decrease cannot be higher than the standard/sustainable) or the lack of reliability at 75% of the PSI's maximum speed (if a Max hours is 4, after three hour the difficulty increases by one)
• Damage to the nacelle reduces warp speed to zero from first hit with what is called a plasma disruption whether there was a plasma breach in the hull. This assumes that there was no significant damage to the nacelle.
• The nacelles usually are placed on the end of a nacelle pylon. Leaving it an exposed target of plus one to any attack.
• The single nacelle increases the difficulty of getting hit by one that of a standard set of two nacelles.

Example: *Single Warp Drive Nacelles: Type 6D <105 – 26 (26.25) = 79>*
Speed: 5.7/8.9/9.2 [1 power/.2 warp speed]
Special configuration: Single Warp nacelle
PIS: Type G (10 hours of Maximum warp (difficulty +1 after 7 hours)) <14>

Triple-Nacelle or Quad-Nacelle Warp Drive or More
• Costs 25% more per warp nacelle beyond than SU's for that for a standard twin-nacelle system.
• Additionally, speed increased by point one warp factor of speed per category (the point one warp factor can be spread across in whatever formula but suggests the increase across the standard/sustainable/maximum such as +.1/+.1/+.1 the increase cannot be higher than the sustainable/Maximum. (A Quad nacelle would have the increase of standard/sustainable/maximum +.3+.2+.1)) the increase cannot be higher than the sustainable/Maximum. The additional uprating packages can be added conservatively to create a vessels drive that has a sensible appearance.
• With the extra warp nacelle I suggested that an automatic two hours of maximum warp speed is a given.
• Note the Number of extra nacelles do accumulate bonuses beyond that the addition of a single nacelle or double nacelle listed above. However, an additional one hour of maximum warp speeds per nacelles up to five nacelles. Nevertheless, exceptions to the rule will be

allowed if the design and operation is feasible and makes sense.
• Damage to the nacelle reduces warp speeds to by seventy percent from first hit with what is called a plasma disruption whether there was a plasma breach in the hull. This assumes that there was no significant damage to the nacelle.
• The additional nacelle makes it +1 easier to hit per the additional nacelles.

Example: *Triple Warp Drive Nacelles: Type 6D <105 + 27 (26.25) = 132>*
Speed: 6.1/9.3/9.7 [1 power/.2 warp speed]
Special configuration: Triple nacelle, two (one port and one starboard,) one nacelle centerline and high.
PIS: Type G (10 hours of Maximum warp (+1 hour to triple nacelle)) <14>

Example: *Quad Warp Drive Nacelles: Type 6D <105 + 27 (26.25) + 27 (26.25) = 159>*
Speed: 6.3/9.4/9.7 [1 power/.2 warp speed]
Special configuration: Quad nacelle design two port and two starboard high and low of the secondary hull.
PIS: Type G (10 hours of Maximum warp (+2 hour to Quad nacelle)) <14>

The 9.99 taking up the extra .2 warp factor points that would have made the warp speed as warp 10.1 beyond the maximum warp speed for The Next Generation era warp speeds. The adjustment of the decimal point to the warp factor is acceptable by adding to the point beyond the speed.

The multiple alloy warp coils are worth their weight in Gold Pressed Latinum. The make repairs to the ship the vessel must usually pulling into a Spacedock where the nacelles are exposed and either repaired or replaced. The qualified technicians and engineers carry out the work. The usual repairs take several days and weeks to carry out in the yard. Federation Engineers in remote locations where the material for the coils are found have made the temporary repairs.

Using the example above the triple nacelle would have 44 SU's per nacelles and the quad nacelles would have 39.75 SU's each.

Embedded-Nacelle Warp Drive
• Costs 75% of per warp nacelle beyond than SU's for that for a standard twin-nacelle system.
• Additionally, speed decreased by one per category (the embedded warp factor reduction -.1/-.1/-.1).
• With the embedded warp nacelles I suggested that an automatic one hours of maximum warp speed is taken away.
This rule takes into consideration that the embedded nacelles are twin embedded or single embedded nacelles into a ship.

• Damage to the nacelle reduces warp speed to eighty-five percent from first hit with what is called a plasma disruption whether there was a plasma breach in the hull. This assumes that there was no significant damage to the nacelle.
• The benefit's to the shields of +100 to the shield protection and +10 to thresholds.
• I usually force the incoming fire to have to burn the SU's in Embedded Nacelles away before damaging the nacelles themselves and the rule of plasma disruption still applies to the nacelles.
• The uprating of the packages cost double to that of the normal in the uprating. Like the standard nacelles cannot be uprated beyond warp 10.
• The nacelles are protected and there is an increase of difficulty two to any attack.
• The difficulty increases by three for hitting the embedded nacelles.

Example: *Embedded Warp Drive Nacelles: Type 6D <105>*
Speed: 5.9/9.1/9.5 [1 power/.2 warp speed]
Special configuration: Embedded nacelles <32>
PIS: Type G (10 hours of Maximum warp (difficulty +1 after 7 hours)) <14>

Partly Embedded-Nacelle Warp Drive
• Costs 88% per warp nacelle under than SU's for that for a standard twin-nacelle system.
• Additionally, speed decreased by zero per Standard, point one per Sustainable and point two for maximum. (The Embedded warp factor reduction -.0/-.1/-.1).
• With the partly embedded warp nacelles I suggested that an automatic one hours of maximum warp speed is taken away.
This rule takes into consideration that the embedded nacelles are twin partly embedded or single embedded nacelles into a ship the cost for the Partly embedded nacelles costing two times the SU's.
• Damage to the nacelle reduces warp speed to seventy-five percent from first hit with what is called a plasma disruption whether there was a plasma breach in the hull. This assumes that there was no significant damage to the nacelle.
• The benefit's to the shields for partly embedded nacelles of +50 to the shield protection and +5 to thresholds.
• The uprating of the packages cost fifty percent more to that of the normal in the uprating. Like the standard nacelles cannot be uprated beyond warp 10.
• The nacelles are protected and there is an increase of difficulty one to any attack.
• The difficulty increases by two as the nacelles are partly exposed as they are on the Federation starship Defiant as they are partly exposed and covered.

Example: *Embedded Warp Drive Nacelles: Type 6D*
<105 – 12 (12.6) = 93>
Speed: 6.0/9.1/9.5 [1 power/.2 warp speed]
Special configuration: Embedded nacelles <16>
PIS: Type G (9 hours of Maximum warp (difficulty +1 after 7 hours)) <14>

The embedded nacelles are usually are one or two, no more. The single nacelle is in the middle of the ship. The embedded nacelles are shielded to prevent harm from the EM field generated by the nacelles. The field creates an inching feeling when the ships systems are not working well. With the nacelles embedded deep in the hull the cost of making repairs to the nacelle costs three times the Latinum and time to make the changes to the ship.

The protection of the nacelles are covered by the hull plating and the weapons impacts causes exterior damage to the hull before the nacelles is damaged. The weapons has to penetrate the outer hull and inner hull with the resistance from both.

Embedded Warp Nacelles
Mod -7
Crew 15%
Using the nacelles Table (page 35), compared the nacelles' current remaining SUs and finding the nacelle type on the table which most closely match it (round up if necessary). That indicates the nacelles' current warp capability. The Narrator rolls 1d6 at 25%, 50%, and 75% damage; increase the chance to 1-5). When the nacelles have been damaged to 50%, roll 1d6. A 1-2 indicated that at least one nacelle explodes causing its normal full SUs to the ship in damage (only Resistance protects against this) unless an astute crewmember makes a Routine (5) shipboard systems (any) Test to eject the nacelles just before they explode. Roll again every 10% damage thereafter. The Crew figure for nacelles are usually 0, since few if any people work in them, but of course any secondary explosion could kill hundred of the crewmembers. If a nacelle is destroyed, a ship can no longer maintain a stable warp field, and thus cannot attain warp speed. Each Nacelle that explodes causes an additional 10% damage to the ships surrounding systems.

Twin Sets of Warp Drive Nacelles
• Some Federation starships have been installed with the two complete full Warp Drive nacelles and systems. These do not cost any different than a standard but SU's cost for both sets of warp nacelles. There is a Nebula-class Prototype version that is this way and there may be others that are similar that I have not seen. This may be the test vehicle to experiment with a new type of warp engines.

• The secondary set of Warp nacelles should not cost more than the Primary set of warp nacelles. It does if the warp nacelles are complete and used for the test ship before the vessels. This is a mid 24th century vessel that has been constructed to operate the planet.
• The nacelles usually are placed on the end of a nacelle pylon. Leaving it an exposed target of plus one to any attack. That is unless the second set of nacelles are embedded and the rules for them apply to them only.

Example: *Primary set of Twin Warp Drive Nacelles: Type 6D <105>*
Speed: 6.0/9.2/9.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles
PIS: Type G (10 hours of Maximum warp) <14>

Secondary set of Twin Warp drive Nacelles: Type 5.6 <53>
Speed: 5.0/9.0/7.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles
PIS: Type B (5 hours of Maximum warp) <4>

Other Warp Drive Systems
Specialized warp drive systems to enhance the warp drive systems are common throughout the galaxy. Here are some of the other Warp Drive systems that are available to other space traveling species across the Galaxy and beyond.

Other Warp Nacelle Configurations
• Retractable Nacelles still cost 3 SU's and 5 power and 1 round to deploy as per Spacedock sourcebook. The nacelles usually are placed on the end of a retractable nacelle pylon. Leaving it an exposed target of plus one to any attack while deployed and a defense bonus of one when retracted.
• Variable-geometry nacelles still coat 5 SU's and 5 power and 1 round to deploy as per Spacedock sourcebook.
• Embedded nacelles see above.
• Coaxial Warp Drive, Soliton Wave Propulsion, Quantum Slipstream Drive and Trans Warp Drive Same as per Spacedock sourcebook or to the altered version per Battlestar Galactica and Andromeda see Spacedock.
• Hyper drives are not included in this system of setting up for the drives and has no effects from the set ups above.
• The uprating of the packages to warp nacelles cost twice that of the normal for either set of nacelles.
• The bonus upgrades can be rearranged downward to Standard but not upward to maximum with no costs. However, to the penalties are capable of rearrangement in reverse the top maximum up, from the standard.

The entire math is rounded up no matter how low of number decimal points are reached.

The Vulcan Ring Nacelles

• Costs 25% more than SU's for that for a standard twin-nacelle system.
• Additionally, speed increased by point one warp factor of speed per category (the point one warp factor can be spread across in whatever formula but suggested the increase across the standard/sustainable/maximum such as +.1/+.1/+.1 the increase cannot be higher than the sustainable/Maximum.
• The ring is visible on the exterior and is typical of the 22nd century Vulcan starships. These Nacelles are still in wide use but newer innovations of the Starfleet nacelles have been made more reliable and cost effective.
• Being so visible, the ring nacelle is more vulnerable to damage. The additional uprating packages can be added conservatively to create a vessels drive that has a sensible appearance.
• The nacelles usually are placed on the end of a nacelle pylon and encircle a portion of the ship. Leaving it an exposed target of plus two to any attack.
• The ring nacelles are easier to hit as they are far more visable giving a hit bonus of two.

Example: *Vulcan Ring Warp Drive Nacelles: Type 6D <105 x 1.25 (26.25) = 131.25 (132)>*
Speed: 6.1/9.3/9.7 [1 power/.2 warp speed]
Special configuration: equals two Standard nacelles

Tetryon Warp Drive nacelles

Power Cost: there is no change but for each warp factor there is -1 to the power requirement once they reach a factor.
SU Cost: + 10 to the cost of the warp nacelles and +2 to any upgrades.
• The Tetryon Warp Nacelles use specialized warp plasma of Tetryon plasma and is considered hazardous to stability of space when there is a release of warp plasma. The bonuses to having +2 hours of Maximum, +2 to all warp factors, and the embedded nacelles penalties are ignored. An additional bonus is that the there is a power increase of one percent from the warp core for the Tetryon nature of the core. The adjustments the bonus upgrades can be rearranged downward to Standard but not upward to maximum with no costs.

The repairs to the warp a system requires twice the time to make repairs to the drive than that of the standard warp drive.

Starfleet has only begun experiments in the warp drive systems in the early 24th century. The release of the Tetryon Warp Plasma causes a trialing starship to stall to half the impulse speed. The ship stalled must purge its Bussard collectors and plasma chiller grills of the Tetryon plasma before it can return to warp speed or full impulse.

Example: *propulsion systems*
Warp drive *Nacelles: Type 6D <105 +10 = 115>*
Speed: 6.0 (+.2 = 6.2)/9.2 (+.5 = 9.4)/9.9 (+.2 = 9.99 or 9.92) [1 power/.2 warp speed -1 per Warp Factor]
Special configuration: two nacelles Tetryon
PIS: Type H (12 + 2 = 14 hours of Maximum warp) <16>

The Tarellian Sphere Nacelles

• Much like the Tarellian Sphere Nacelles but a drive systems is fairly exotic and consist of a transparent sphere that flickers with colors.
• Costs 20% more than SU's for that for a standard twin-nacelle system.
• Additionally, increase to the drive is as follows +.2/+.1/+.0.
• The sphere is visible on the exterior and is typical of the Tarellian starships. These Nacelles are still in wide use but newer innovations of the Starfleet nacelles have been made more reliable and cost effective.
• Being so visible, the sphere nacelle is more vulnerable to damage. The additional uprating packages can be added conservatively to create a vessels drive that has a sensible appearance.
• The nacelle usually are placed protruding through the ships upper and lower ships main hull. Leaving it an exposed target of plus two to any attack.
• This configuration has a weak resistance half of the exterior and interior for the sphere.
• This configuration gives a bonus similar to that of the embedded nacelle (shields +50 embedded nacelle and threshold +5 embedded nacelles).
• The Sphere is hard not to target as they are mostly exposed and the targeting ship gains a bonus of plus two.

Example: *Tarellian Sphere Warp Drive Nacelles: Type 6D <105 x 1.20 (21) = 126>*
Speed: 6.2/9.3/9.6 [1 power/.2 warp speed]
Special configuration: equals two Standard nacelles

Talarian and Klingon Warp Drive Plates
"Warp Field External Shaping Plates" (a.k.a. Nacelles, a.k.a. wing nacelles)

The variation of the Klingon warp plates are much like the nacelles and are deployed to the either side of the ship's hull. The warp plates are individual and act much like the Standard Nacelles. These are not many other species by any other species known to be in the Alpha and Beta quadrants. Another species is Talarian and used in their warship and Observation ships.
• Costs 85% of SU's for that of a standard twin-nacelle system.

• Reduction of warp speed -0.1/0.2/0.3 and addition of one hour of warp speed.
• The shields get a bonus of 75 additional protection and 7 additional protection to threshold as it is considered to be partly embedded nacelles.
• The Klingon wings that the plates are constructed into are variable geometry allowing the vessel to swing into a flight position, landing position, and attack position and cost an additional ten SU's to the nacelles (90 degrees swing).
• The wings have half the resistance on the interior and the same as on the outer hull. The unique designs allows these plates to cool quickly before landing on a planet.
• There is little known about the origins of the formation of these kind of nacelles.
• The additional nacelles follow the rules for multiple nacelles after initial generation of the first two nacelles. Once the generation is completed, the ships additional nacelles are added in with all the details.
• The Warp Field External Shaping Plates have the same effect as Embedded Warp Nacelles such as shield bonus's +100 to shields and +10 thresholds and costs.

* Additional notes the ship with fixed nacelle plates can have a covering that looks like a solar panel which they are and generate power that the ship can use. The Talarian use the solar panels as an additional power to power systems other than the warp systems.

Klingon Twin Warp Drive Nacelle Plates/Swing Wings:
Type 6D <(105 x 85% = 90) + 10 = 100>
Speed: 5.9/9.0/9.3 [1 power/.2 warp speed]
Special configuration: Standard two nacelles with bonus given to Embedded nacelles <32>
PIS: Type G (11 hours of Maximum warp) <14>

Talarian *Quad Warp Drive Fixed Nacelle Plates: Type 6D*
<(105 x 85% = 90 + (25%) 23 + 23) = 136>
Speed: 6.2/9.2/9.4 [1 power/.2 warp speed]
Special configuration: Standard two nacelles with bonus given to Embedded nacelles <32>
PIS: Type G (11 hours of Maximum warp) <14>

Additional Notes
• Most of these types of nacelles such as embedded and a single warp nacelle can be used together using the greater of the two SU's cost. All the drawbacks or bonuses apply to the nacelles as well. Most ships have one or the other but a few individual ships have two of these systems such as a single nacelle, which is embedded into the keel of the hull of an alien freighter that bloomed into a standard design for the entire species starfleet.

• Damage to the warp plasma system causes bleeding Warp Plasma. The bleeding the warp plasma cause additional damage to the ship, for each round the damage increases by one to the EPS grid and/or the hull.
• The leaking EPS Grid of the warp core can be shut off with a difficulty challenge of 12 when it is manually making the adjustments. The physical damage that can be done to an individual caught in the heat and radiation effects. A prolonged exposure to the heat and radiation can kill.
• If as in Star Trek: The Wrath of Khan the Warp nacelle of the Reliant was blasted off by a photon torpedo and phaser bank blast, and allowed the plasma t escapes the breach in the nacelle support pylon. So such damage as a breach in the EPS Grid each round causes an additional two damage per round to the EPS and then one damage to the hull from the point of plasma bleed.
• If the Warp Plasma is ignited while leaking from the EPS Grid the plasma does two time the count of the Power transfer rate in damage to the ship in the resulting explosion. If the plasma is leaking inside the hull the explosion results in an explosion, four time that of an external explosion.
Example: A Klingon Vor'cha class starship bleeding warp plasma from the port nacelle has its plasma ignited the resulting explosion is 600 damage to the ship.
• With a breach in the EPS Grid looses the power of the transfer rate for use to other systems to use. A ship with a loss of the specific amount could be crippled in battle. The bleeding EPS Grid is just as dangerous to that of a damaged warp core.
• Tetryon warp plasma causes even more damage when the explosion twice that of a normal warp plasma. In addition, a Tetryon explosion causes damage to the barrier between subspace and normal space. A Tetryon breach to subspace is a dangerous anomaly measuring one MU per 100 of power being generated by the Warp Core. (*So a warp core generating 549 power would create a Tetryon rift five and half MU's of space not to mention the destruction of the starship that is destroyed.*)
• Any warp core breach must take into account the damage to the barrier between subspace on the explosion. An explosion can cause an eruption of subspace into normal space. a failure of difficulty roll of 2 on a roll of 2d6 to the fabric of space roll when the Game Master sees the need to roll of it.
• If the warp engines are pushed too far, for too long and the nacelles are over heated after too long the nacelles become useless and take a material to replace the materials lost. In the search of a systems, when Starfleet repair yards are far out of reach of the ship is a difficult search for a ship with a crippled warp engine. The search of a star system for precious materials needed to repair the nacelles. The increase difficulty of the lack of warp drive increases the difficulty of not finding the ore

needed to fourteen. (See below for the rebuilding of warp coils.)

• The initial construction of warp capable ships is difficult without a supply of basic material that is used in the construction of a working ship. The starships warp nacelles are the most difficult as they require warp material that are not native to planets. If the characters need to build, a ship to carry them to the next star System and they have the knowledge of a space travel. The difficulty would take months to create the materials from raw materials and the generation of more exotic material needed to create a ship. For each individual SU of the ship, the time it takes to create and equals three day per SU.

• A secondary plasma grid can be installed in a ship and take over cutting off the primary grid and supplementing the systems until repairs can be made to a ship.

• The use of Surillum can be used in many different systems. The Surillium can increase shield efficacy and warp engine functions and weapons systems are the namely the best options. The use of Surilliun increases efficacy by ten percent to whatever system is coated or injected with this gas.

Additional Warp Systems

With the standard use of the nacelles the below allows to players to understand the sections of the warp nacelles belongs to what.

Advancing Warp Nacelle sub systems design

Damage to the new warp nacelle subsystems will reduce the warp drive efficiency by 33% the times the speed of light. If pressed past the efficiency one SU worth of damage to the nacelle per round.

Bussard Collector & Deuterium Collection Grid plus emergency Flush Vent

SU's Used: 10% of nacelle SUs cost
Power: 1 power per round/Emergency Flush Vent requires a 2 power to blow clear.

The Bussard Collector and the subsequence collection grid plus the Emergency Flush Vents all count as one in the ship.

During the late 23rd Century the Bussard collectors were removed and the Deuterium Collection Grid. The subsequence collection grid was redesigned to increase efficient. Sometime in the before 24th Century the Bussard collectors were being integrated as the vessels required the starship to refuel far more often than the vessels with the full Bussard Collector.

Example: *Twin Warp Drive Nacelles: Type 6D <105>*
Speed: 6.0/9.2/9.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles

Bussard Collector [1 power/power] <11>
PIS: Type G (10 hours of Maximum warp) <14>

Space Warp Control Sensor

SU's Used: 1 per nacelle
Power: 1 power/round

The Space Warp Control Sensors scan the stability of the warp field, the subspace bubble, and the subspace wake left behind the starship. This provides a bonus to warp travel and a stable warp field of +1.

Example: *Twin Warp Drive Nacelles: Type 6D <105>*
Speed: 6.0/9.2/9.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles
Bussard Collector [1 power/power] <11>
Space Warp Control Sensor (+1) [1 power/round] <1>
PIS: Type G (10 hours of Maximum warp) <14>

Primary and Secondary Warp Chillers & Intercooler

SU's used: 10% of nacelle SUs cost
Power: 1 power round per nacelles

The warp nacelles cooling system that keeps the coils at a serviceable level of use. The coils over heat the vessel fails to maintain the stable warp bubble.

The Primary and Secondary Warp Chillers & Intercooler have a minimum of 1 SU's per nacelle.

Example: *Twin Warp Drive Nacelles: Type 6D <105>*
Speed: 6.0/9.2/9.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles
Bussard Collector [1 power/power] <11>
Space Warp Control Sensor (+1) [1 power/round] <1>
Warp Chillers (intercoolers) [1 power/round] <11>
PIS: Type G (10 hours of Maximum warp) <14>

Enhanced Bussard Collector

Power cost: 1 power/round
SU Cost: +5 per nacelle

The Bussard Collector collects more hydrogen than the average Bussard Collector and lengthens the fuel reserve for the ship by five percent. However, this is not useful for vessels that are running around the local sectors but for across a quadrant or longer travels the enhanced Bussard Collector is useful.

Example:
Consumable: 3 years' worth (Fuel stores extended 2 additional months.) <21>

Example: *Twin Warp Drive Nacelles: Type 6D <105>*
Speed: 6.0/9.2/9.6 [1 power/.2 warp speed]
Special configuration: Standard two nacelles
Bussard Collectors [1 power/power] <11>
Enhanced Bussard Collectors [1 power/round] <5>
Space Warp Control Sensor (+1) [1 power/round] <1>

Warp Chillers (intercoolers) [1 power/round] <11>
PIS: Type G (10 hours of Maximum warp) <14>

Addition to the damage chart
5 – 6 Warp Nacelles (1d6)
    1 - 2 Warp coils
    3 Plasma Injectors
    4 Bussard Collector & Deuterium Collection Grid
    plus emergency Flush Vent
    5 Space Warp Control Sensor
    6 Primary and Secondary Warp Chillers &
    Intercooler

Multiphase Warp Nacelles
Power Cost: 1 power .15 warp factor
SU Cost: +7 to warp nacelles

The Multiphasic Warp Nacelles are adjustable and can be adjusted to mimic another vessels warp field hiding its identity. Most of the major powers have deemed the Multiphasic Warp Nacelles illegal, while their intelligence agencies have vessels that have this technology installed in spy vessels. For the price of three times the cost of the SU's in Gold Pressed Latinum, a Multiphase Warp Nacelle can be bought.

Only the most discriminating sensor systems can detect the differences in the warp fields. A sensor system with strength of eight or better and a gain of class beta can even be used to detect the difference in the field with a skilled operator that knows the differences.

The Multiphasic Warp Nacelles must be programmed with the field emissions of the designated warp field that it is intended to mimic. A simple scan of a vessel by the ships lateral sensors within 20 MU's by either a probe or a starships sensors system of class 7 strength or better. The Nacelles are capable of holding no more than five different patterns.

Any damage sustained to the warp drive immediately shows that the system is a Multiphase Nacelle design. Once the damage is done, the system cannot take on the disguise of another Warp Field. An extreme high warp speed will begin to show that the Multiphase Nacelles warp field's failure.

Example: *Twin Warp Drive Nacelles: Type 6D <112>*
Speed: 6.0/9.2/9.6 [1 power/.15 warp speed]
Special configuration: two multiphase Warp Nacelles
PIS: Type G (10 hours of Maximum warp) <14>

However, this can be done with any warp nacelle by making the adjustment manually to the nacelle and adjustments to the nacelles plasma flow. The difficulty is such that not any engineer can pull it off. Only the best of the engineers can do so. Any lateral and long-range sensor with strength of class 5 with a class alpha gain can easily make the detection of the adjustments if there

is an intense enough scan concentration to the sensors (an addition on 5 power to the scan).

Even though it is falsifying the warp signature manually there has been no laws created about doing so yet by any of the major governments but is not looked upon highly, where the Multiphase Nacelles are illegal.

This war drive system is difficult to operate that it is still considered to be experimental and most have not bothered to do much with advancing its technology.

Trans Warp nacelles
SU Cost: 15 x Size
Power Cost: 15 x Size

Although the use by species such as the Borg, that allows the creation of a "corridor" in space-time from one place to another. A ship using the corridor travels at near Warp 10, a speed unattainable with standard warp drives. The vessel travels at 20 times faster than conventional warp drives. The Trans Warp drive differs from where at normal maximum warp to travel to a nearby star system one 24 hour day but the Trans Warp drive would take only 1.2 hours.

For more Trans Warp details look at the Spacedock page 37.

Speeds	Warp Drive (Warp 9.2)	Trans Warp
to a neighboring system	1 day (24 hours)	1.2 hours
Across the sector	4 days	4.8 hours
10,000 light years	27.4 years	1.4 years

My notes for the Borg Trans Warp Coils

Borg vessels have multiple Trans Warp coils located throughout the ship. The intergraded this diversity I have separated the coils into by taking the size of the vessel and dividing it in half and that is the number of coils for the vessel. When in combat to get the SU's for a specific Coil the number of coils is divided into the total of Trans Warp drives SU's.

For example: a Borg cube size 16 with 240 SU's for Trans Warp drive has eight coils at 30 SU's per coil.

I threw in an additional resistance around the coil chamber of 10 as a shielding to the coils. This additional shielding is not that this is like armor but an energy field generated naturally by the Borg Trans Warp coils and works as a bonus to the hull resistance when targeting the coils alone.

Damaged Borg Trans Warp coils Per each Trans Warp coil damaged the length of time that a vessel can travel safely is cut in half starting at seven days. Generally, a no vessel needs to travel more than seven days at Trans Warp speeds.

Example: A Borg cube with eight coils, seven of which are damaged or destroyed it could travel at Trans Warp speed for one point three hours before the failure of the Trans Warp drive. If only one coil damaged the cube could travel three and a half days before the failure causes a problem.

Combat

The loss of a warp nacelles slow the ships speeds. A single nacelle with the loss of the entire warps travel is gone. The loss of speed is judged from the multiple speeds of light.

Dual Nacelles with the loss of a single nacelle reduces speed to half.

Triple Nacelle with the loss of single nacelles reduces the speed by one third.

Quad Nacelles with the loss of single nacelles reduces the speed by one quarter.

Multiple Nacelles (five or more) the loss of one would not have an effect on the ships travel. The vessel would have a benefit traveling at high warp speeds.

Subspace tunnels and corridors

The best way to think of Subspace tunnels and corridors is to think of a subway system. These tunnels are artificially created and remain active even after a starship exits. To enter a starship must modulate a beam to open a rift that allows the ship to enter and fly through. And to exit the ship must modulate a beam to again open a rift to exit. While flying through a tunnel at no more than half impulse for an hour the ship can easily travel light years. These tunnels are fixed and are unchanging. For each light year of distance the tunnel travel distance is 1,000,000 MU's so the average travel to a neighboring system five to seven light-years would be around 16.2 hours at half impulse power. The difficulty in creating a matrix in the main deflector requires several rounds and a difficulty test of 10 once it is known that the Subspace tunnels and corridors are there. These tunnels are capable of handling a few large Borg Cubes at one time.

With a network of Subspace tunnels and corridors starships can travel to neighboring star systems without the need to have installed warp drive engines. These Subspace tunnels and corridors can have traffic to ways with traffic staying to the right. Some species have set up networks crossing several sectors of space.

As these Subspace tunnels and corridors age the walls of these tunnels weaken and objects may slip through and cause hazards which have to be avoided or there may be a collision. A collision in a Subspace tunnels and corridors is treated like a collision at impulse speeds. Once the tunnels and corridors have been constructed they remain till the tunnels and corridors walls fail and collapse from age but routine maintenance will keep a tunnel good as new.

A battle in a Subspace tunnels and corridors can cause a rupture of the tunnel wall or collapse the tunnels or corridors walls if there has been age and deteriorations to the walls. The ship has to be careful in battle. If the battle is violent enough the tunnel could collapse the walls and any vessel caught could have one of two events happen either ejected from the tunnels and corridors or crushed in the collapse. If a vessel happen to collide or fly into a wall of a tunnel or corridor the ship would receive damage as a vessel striking another ship at warp speed.

The big drawback of this type of travel for explorers is that they cannot see the nature as they travel to the destination. The starships would not need a warp drive or nacelles to travel the distance to the tunnel that would be anchored to the gravity well of a planet. So the tunnels and corridors would flex and change to meet the orbital location of the planet that it is anchored to. The destruction of the planet would cause a collapse of the tunnels and corridors back to the opposite anchor end.

Subspace tunnels have popped up more than once in the five series and eleven movies. Each tunnel has its own look and properties.

External Inertial Damping Field *(a.k.a. the parking brake)*
SU cost: 1 SU per section of the ship.
Power: 1 power per round when active.

The External Inertial Damping Field is simply the parking brake on a starship that is installed on many federation starships. This will keep the ship from drifting in space dock or while parked in the fleets navel yards and even when in the surplus depots around the galaxy. The parking brake can be run off a simple auxiliary reactor.

The External Inertial Damping Field will prevent the ship from moving or even going to warp yet the simple drift of the thrusters firing seems to be compensated into the systems. The impulse engine is inhibited to triple the power to move the ship at any impulse speed.

If ships like the Galaxy-class and other, starships like having two sections a star drive and saucer section each would have an External Inertial Damping Field installed in both. For an example, if a Galaxy-class parked in the spacedock it would cost 2 power for the two sections of the starship. Where as a starships like the Defiant-class, a small single hull vessel with not separation system would cost only 1 power for the single section of the ship while parked.

If another vessel is toeing the ship with an External Inertial Damping Field engaged the toe vessel requires twice the amount of power to pull in the impulse engines, structural integrity fields and tractor beams. A ship pulling the vessel with the External Inertial Damping Field activated will have a strain on its system in the engines,

structural integrity field and tractor beam and checks will be necessary to see if there is damage to the ships systems. A difficulty test of 8 plus one per size of the vessel being towed for each round. If two or more ships are toeing the vessel with the External Inertial Damping Field active, the difficulty is cut in half per ship and if the ship is larger than the one being towed.

Failure of the tests for the impulse engines
1 – the impulse engines sustain half their SU's in damage. (The impulse engine will shut down during the round the ship and the ship loses propulsion and speed.)
2 – the impulse engines cause 10 SU's damage to the hull both interior and exterior
3 – damage to the EPS feed causing a plasma fire. (1% of the engineering staff are hurt and/or killed at the GM's discretion fighting the fire or the initial explosion.) The impulse engine shuts down.
4 – the impulse engine over heats and shuts down with the safety systems over riding and there is no damage.
5 – the impulse engine tears loose of the hull and causing addition to the cost in SU's for the engine and 5 SU's of damage to the hull including both the hulls.
6 – impulse engine explodes causing times two the SU's of the engine.

Structural Integrity Field failure
1 – 2 – SIF cannot cover the strain and the sustains 10 SU's damage to both the inner and outer hulls.
3 – 4 – the strain on the SIF cause either the Main or one of the backups to shut down after the strain. The SIF that shuts down and sustains half its SU's in damage.
5 – 6 – The SIF burns up sustaining one third of the damage to the SU's.

The other day I was watching Star Trek: The Next Generation, the episode of The Battle and Geordi said "I activated the emergency power cells, amazing they still work." I assume that these are small generators that can provides temporary power for an individual item such as Backup Life support or gravity generators only. The Cells are possibly like the auxiliary reactors but are short term power generation of 3 to 5 power per round or as I would like to think that the power generation per part that is needed like a backup power like Emergency power when the ship has a total and complete power failure that includes all emergency power. I would say that this emergency power would cost 1 SU per item such as Gravity or Backup Life Support systems and will operate up to a week while the A ship that is undergoing repairs and would supply that system power either both or either one individually.

This would be different than the Auxiliary Power or Emergency Power that can be used in many other thing

including impulse engines where these emergency power cells are dedicated for back up of life support and gravity.

It is a little redundant but it can be additional reactors.

- -

It has been mentioned a few times around the forum here that they had heard that "Scotty had charged the Phaser banks" which is mentioned in The Original Series episode of Doomsday Machine. That would either directing power to the phaser banks or charging small reservoirs of power allowing the ship to fire when the power is disabled or something's like in the Wrath of Khan allowing for a "few shots." Something like this can be applied to one or more phasers a power storage cell like a capacitor that gathers power and hold power.

For space dock systems I would say that a storage device that could hold power for no more than the number of shot total of a single phaser bank or array. If the phaser can fire three shots then the phaser bank battery or capacitor can holds that much power only. Once the phaser are not needed the power can be returned to the ships power systems.

Here is the Spacedock Systems for the 23rd century Forward Phaser Bank from a Constitution- class Star ship with the power storage. Using the Spacedock equivalent that is EPS system and cost 1 SU per 10 power stored. The phaser can use the stored power whatever way it needs to such as half powered shots full power or even an over loaded power shot. Or that the charge could be connected to all the phaser banks and stored with the single set of shots equal to the maximum number of shots of the best Phaser bank or array. The recharge would be no more than 5 power per round.

Here is for per phaser bank or arrays.

Forward Phaser Bank *<24 + 5 = 29>*
Type: VII
Damage: 140 [14 Power]
Number of Emitters: 120 (up to 3 shots per round)
Targeting System: Accuracy: 4/5/7/10
Range: 10/30,000/100,000/300,000
Location: Forward Ventral
Firing Arc: 120 degrees Ventral
Firing Modes: Standard, continuous, pulse, Wide- beam
Battery charge [42 power/stored]

Or...

One for all phaser banks.
Battery charge [42 power/stored] <5>

If wanted the power can be evened up to 50 power

stored in the battery charge.

If used on one of my ships in the game I would drop the power production by 10 to 20 power from the warp power. I kind of find it a bit of a cheat to have this placed in a ship such as the Constitution- class Enterprise. But it is up the each games Master of ceremonies.

- -

Not recently but when one of our groups that where renegade Federations members that were kind of like the A-team, had to buy a civilian ship as theirs had been hijacked by a Ferengi crime syndicate and was being sold as scrap. This was the first time that we had encounters such a problem. They were buying a used starship more than fifty years old in need of repairs. I did not think that they should be buying the ship at full cost of 10 bars of Gold Pressed Latinum per SU so I made a cheat sheet to alter the cost. This was originally designed for buying replacement parts for ship.

Ships with Federation and Romulan technology…+2
Ships with Klingon and Cardassian technology….+1
Ships with Ferengi and Minor races technology…+1
Ships with any kind of Borg technology………....+4
A ship that has cloaking technology if in legal locations...+3
A ship that has cloaking technology if in illegal locations…+9
Historic or legendary ships………………………+10
Ship has been illegally obtained…………………-4
Ship is salvage and does not function……………-9
Ship is a traded in model and is fictional……….+/-0
Freighters, cargo carriers, and transports……...+0
Exotic alien starships with exotic technology.....+10
Warship based starship…………………………....+3
A ship that is more than ten years old…………..-2
A ship that is more than twenty years old……..-3
A ship that is more than thirty years old……….-5
A ship that is more than fifty years old………...-6
A ship that is more than one hundred years old…-7
A ship that is more than three hundred years old…-9
A ship that is more than a thousand years old Museum quality…+50
A ship that has temporal travel capabilities……+25
One of a kind ……………………………………+30
Haggled price up or down modified by +1 or -1 respectfully on which side the Ferengi is haggling. A Klingon haggling using intimidation gains 1 either way and a Vulcan would loose 1 per direction as they are not good at haggling.

So if a Ferengi was trying to sell a Romulan D'deridex-class Warbird straight from the spacedock pages would cost a buy at 10 bars would cost 32,690 bars of Latinum. But under my chart it would cost 68,649 bars in a place

where selling a ship with cloaking in legal sectors of space to do so and if it had been an illegal area it would be 88,263 bars. Fortunately the group had the Latinum for a battered fifty year old size three Miradorn ship from a Ferengi used starship dealer out on the frontiers edge for the cost Plus one being alien and minus six for being older than fifty and a Ferengi being a sales man costing a extra pluse one for 6 bard of bars for 4098 bar of Latinum instead of 6830 bars. This works best with parts for the ship.

Like the above Phaser Bank would cost 144 bars but if that had been a phaser bank from the legendary Enterprise it would cost 384 bars if the seller has stole the phaser and the price would be 288 bars.

For a ship that has been constructed out of parts from multiple ship the same chart that is above can be used for each part generating a price that reflects the ships overall design. I have never taken the time to calculate a ship that is of that style but I would find it interesting.

This full little chart can give any difference in prices with depending on the starting price.

- -

Mine laying
Seen most vividly in Gene Roddenberry's Andromeda with the Tyr laying a field of mines behind the ship to eliminate the Than pursuers in one episodes. In Star Trek: Deep Space Nine the Defiant was laying mines across the mouth of the wormhole but I think those where pushed out of a door into space and the mines drift into place using thrusters or in Voyager during the year of Hell Janeway ejected Photon torpedoes allowing them to drift into the torpedoes like mines. This may not be too functional in Star Trek but in Andromeda, Battlestar Galactica, and Babylon 5 with the ships and the like they could be quite handy. While in Enterprise it is seen the Enterprise deploying a sub-space communication satellite in one episode and another spoken about in other episodes.

Here is a bit of technology that could be installed on any ship Star Trek or other series with some exception. It is useable for mass and single mine launch deploying the mines.

F.Y.I.: The mines can also be deployed by using a photon launcher and placing the mine and then moving off. The Navy as per Tom Clancy's book on the submarine illustrates deployment similar to that of a torpedo and leaving the mines to fend for themselves or have a command and control vessel to detonate or launch a sleeper torpedo to destroy the target.

Mine Laying Technology
SU Cost: 5 + 1/spread
Power cost: 5 + 1 per mine deployed in spread

Whether strategically laying a single mine in an exact location or laying a hazard field in the path of another starship, the craft can lay a spread three times the width of the ships beam in a single launch and drifting out wider but saturating the area.

The largest mine laying can be no more than twelve mine from a single launcher in a single round. In Star Trek a starship would likely be able to deposit one to four mines in a single round. In Andromeda the Andromeda can deposit anything from ten to twenty mines from multiple launchers. These mine laying systems can also place satellites into orbit as well as a starship.

Aft Mine Laying <13>
Standard Load: Class 2 (100 damage)
Spread: 12
Range: 1
Targeting System: Class Beta (Accuracy 4/5/7/10)
Power: [5 + 1 mines released]
Location: Aft hull
Firing arc: Aft drift

The above is the mine laying device installed on a Glorious Heritage-class Heavy Cruiser but there are three additional devices installed on the Andromeda as well in strategic place on the aft belly of the hull allowing the mines to drift out behind the ship. With these four mine deployment behind the ship.

Used in deploying an orbital mine field blockading the surface in several orbits at half the orbital speeds. The mine field can be activated once the final mine is deployed or from a distance by using a special coded signal. Like the mines from Deep Space Nine they can be set to use their thrusters to swarm in on a single ship. The mines can also be designed to target a single starship or starship signature.

Optional Mine rule
Types of Mines

Type	Damage	size
Class 1	50	.25
Class 2	100	.5
Class 3	150	1
Class 4	200	1 (This mine is equal to the self-replicating mines in Deep Space Nine but with a cloaking device)
Class 5	250	2
Class 6	300	2

The mines come in different sizes and can be deployed in spreads that are larger fields such as a deployment above would be four times that the standard size if a Class 1 is released would be a spread of 48 mines in a single launch. This would be the same amount of potential damage whether a class one or a class four when struck.

ECM unit
The Electronic Counter Measure unit come in multiple types in Andromeda and prevent an accurate lock on the ship. The class of ECM Units increase the difficulty of making an accurate target lock on the ship by fooling the targeting ship into believing that it has targeted the ship but has not really done so.

Types of ECM Units

Types	Difficulties	Power	SU's
Class 1	+1	2	10 + size
Class 2	+2	3	15 + size
Class 3	+3	4	20 + size
Class 4	+4	5	25 + size
Class 5	+5	6	30 + size
Class 6	+6	7	35 + size
Class 7	+7	8	40 + size
Class 8	+8	9	45 + size
Class 9	+9	10	50 + size
Class 10	+10	12	60 + size

Anti-matter Spread
The anti-matter spread is a series of rockets carrying a small payload of Anti-matter charges that are short range weapons. The rockets can be fired easily as a last ditch effort to destroy a target.

The antimatter spread costs 5 + 1 per every 5 missiles per rocket pod with a limit of 15 rockets per pod. The system cost 5 power + 1 power per rocket fired. These rockets have a short and have a range. The range is 2/3,000/10,000/30,000 and they can produce 20 damage per rocket. Installed in groups of ten on the hull.

Although not normally installed on 23rd or 24th Federation starships there have been some starships that have had retrofitting that installed this weapons system such as the USS Enterprise NCC-1701-D during the Borg attack as a distraction weapon during an conflict with the Borg cube to hide the emissions of a shuttlecrafts infiltration behind Borg shields in an attempt to retrieve Captain Jean-Luc Picard.

Some species with new entrance into the space fairing community have these weapons attached to their hulls.

Example: A Galaxy-class
USS Enterprise NCC-1701-D
Antimatter Spread <8 x 10 = 80>
Number: 15
Spread: 3
Range: 2/3,000/10,000/30,000
Targeting Systems: Accuracy 4/5/7/10
Power: [5+1 rocket fired]
Damage: 20
Locations: Replacing the forward sensor pallet arrays in the saucer section.

Notes:
The weapons fire put out by the Enterprise fired can equal to three Type II Photon Torpedoes fired together. The result is more confusing than that of damaging against the Borg shields.

Star Trek TOS "Ultimate Computer" Episode and sequel

The Dr. Richard Daystrum computer upgrade to the Constitution Class Enterprise was both a success and failure in its function. This is the place where there is room for disagreement but the systems would make a fleet of ships more a shadow fleet crewed by a minimal or no crew in a fight much like the Romulan Flee ships used in the Romulan/Earth Wars. For further reference see page 17 or Spacedock Volume 4 Ships of the Original Series Era sourcebook.

We ran a sequel to the episode the "Ultimate Computer." This is the data from that game. The adventure is basically a game where the reinvented M5 computer system is tested on another starship a Miranda class starship this time. It was marginally more successful than the original M5 was.

The M5 Multitronic Computer uprating (Original computer)
SU's Cost: 15 SU's for the computer
Power Cost: requires 10 power per round; see notes

This enhancement is available after 2268. The M5 Computer gives the ships that have it installed with the bonus of +2 to all actions taken as the computer is tied into all systems. Once the ship is equipped with the M5 computer the ship does not need to have a crew it usually had, but is lowered to ten percent of the crew (a crew of 430 would be reduced to 43 persons or less).

The computer starts to act irrationally little by little after each day. One point of difficulty for each day the ship is under complete control. After the difficulty rating reaches fifteen the computer locks out the crew.

After several days the M5 Computer begins to pull more power adding five power each day and GM's discretion. The computer can handle up to 90 power.

The M5-A Multitronic Computer uprating (revamped Computer)
SU's Cost: 19 SU's
Power Cost: 15 power/round

This revamped version of the M5 is essentially the same as the prototype but has restrictions such as the M5-A is equipped with multiple cut offs and safety measures that prevent the computer from running wild as the Prototype computer had two decades earlier had. This new computer is available after 2288. Like the original M5 the M5-A has similar programming and functions. The neural engrams that were impressed on the M5-A were examined and chosen from thousands of applicants across the Federation and the Basic laws of computers servitude were impressed. Like the M5 the ship receives a bonus of +2 to all systems.

M5-B Multitronic Computer upraing
SU's Cost: 16 SU's
Power Cost: 15 power/round

The M5-B is similar in function to the standard M5 and M5-A but is tied into nearly all systems but the Tactical Systems and Navigation Systems and has one main shut off that can be thrown by the flip of a single switch cutting off all power to the system. Its basic function is to accelerate all computer functions that the main computer commands. It is available in 2290

Starship Automation (reference Star Trek III the Search for Spock)
SU's Cost: size x 20
Power Cost: size x 2

This allows the ship to be piloted by a minimal crew for an extended period of time if needed with a bonus of 5. The automation is touchy and can easily be disabled as it is tied into nearly all systems mainly it is used for the navigation and engines. With each additional system that is being run via the automation the difficulty increases by three till the failure. Then the Automation system is damaged and must be repaired before the system can be used. This can be installed to ferry a ship back to a base where it may be repaired. This ignores

the jury-rigged systems and already established damage as long as that system is running, any new damage adds ten to the difficulty instantly. Most all of all the SU's must be fabricated with the ships Industrial Fabrications Units and/or Replicators.

Note: ships of the mid 24th century already have much of this automation already installed into it where a single person can pilot the largest of starships for short trips as long as there is no problems.

Warp Power Generation Advancements

Warp cores notes

The following is changes to the Warp Core to both expand and increase the power generation without altering the Spacedock system too much. In the generation of new ships that can be updated with the change of additions to systems or advancements that can be noted on the sheet. The advancements are small and could add a single shot in combat depending on what the original power is. As an example, a Galaxy class with 630 power generation with magnetic constriction segment enhancements with a new class Beta Dilithium Crystal Articulation Frame and a Multiple mater stream orientation enhancements would generate 75 additional power. If all advancements applied the ship could easily have more power than it really could need and as an example a Galaxy-class would have 132 additional power to apply.

Modified Warp Drive Systems Table

Warp Engine	SU	Power Generated/round
Class 1/A	20	10-99
Class 2/B	30	100-149
Class 3/E	40	150-199
Class 4/G	50	200-249
Class 5/H	60	250-299
Class 6/K	70	300-349
Class 7/M	80	350-399
Class 8/N	100	450-499
Class 10/P	110	500-549
Class 11/Q	120	550-599
Class 12/R	130	600-649
Class 13/S	140	650-699
Class 14/X	150	700-749
Class 15/X	160	750-799
Class 16/X	170	800-849
Class 17/X	180	850-899
Class 18/X	190	900-949
Class 19/X	200	950-999
Class 20/X	210	1000-1049
Class 21/X	220	1050-1099
Class 22/X	230	1100-1149
Class 23/X	240	1150-1199

Warp Engine	SU	Power Generated/round
Class 24/X	250	1200-1249
Class 25/X	260	1250-1299
Class 26/X	270	1300-1399
Class 27/X	280	1400-1499
Class 28/X	290	1500-1599
Class 29/X	300	1600-1699
Class 30/X	310	1700-1799
Class 31/X	320	1800-1899
Class 32/X	330	1900-1999
Class 33/X	340	2000-2099
Class 34/X	350	2100-2199
Class 35/X	360	2200-2299
Class 36/X	370	2300-2399
Class 37/X	380	2400-2499
Class 38/X	390	2500-1599
Class 39/X	400	2600-2699
Class 40/X	410	2700-2799
Class 41/X	420	2800-2899
Class 42/X	430	2900-2999
Class 43/X	440	3000-3099
Class 44/X	450	3100-3199
Class 45/X	460	3200-3299
Class 46/X	470	3300-3399
Class 47/X	480	3400-3499
Class 48/X	490	3500-3599
Class 49/X	500	3600-3699
Class 50/X	510	3700-3799
Class 51/X	520	3800-3899
Class 52/X	530	3900-3999
Class 53/X	540	4000-4099

The base SU cost listed in the table indicated the SU cost for the lowest figure in the "power Generated" column – for example, 350 power for a Class 7/M engine. For each +10 power (or fraction thereof) beyond that, the engine costs an additional +1 SU. Thus, a top-of-the-line Class 7/M engine, which generates 399 powers, costs 80 SU's. (For the Class 1/A engine, add +1 SU per +20 power [or fraction there of]. And beyond the Class 20/X, add +1 SU per +10 power [or fraction thereof] or use the Experimental chart above.)

Matter/Anti-matter Injector Efficiency

Upgrade Class	SU's	Efficiency	Power increase
Class 1	1	+0	0%
Class 2	2	+1	1%
Class 3	3	+2	2%
Class 4	4	+3	3%
Class 5	5	+4	5%

Magnetic Constriction segment Enhancements

1 SU for any of the following enhancements structural integrity, this would be for a ship that would be more of a combat vessel. The MCS operational efficiency (+1) with an increase of 1% power generation.

Dilithium Crystal Articulation Frame

Upgrade Class	SU	Efficiency	Power Increase
Class Alpha	1	(+1)	0%
Class Beta	2	(+1)	1%
Class Gamma	4	(+2)	2%
Class Delta	8	(+3)	3%
Class Epsilon	16	(+4)	4%

Additions to the Dilithium Crystal Articulation Frame

Auto-dilithium Crystal Realignment <cost 2 SU's>
Multiple Matter Stream orientation <cost 2 SU's> increase of 10% power
Auto Dilithium Crystal Re-crystallization (+1 to Dilithium Crystals life and 1% power increase) <Cost 1 SU>

Mid-Range Phase Adjustor

SU's Cost: size x 1
Power cost: see notes

The Mid-range Phase Adjustor realigns the plasma after the initial distortion in the plasma. The Enterprise-D's Chief Engineer created the device and installed it on the ship without the knowledge of a Starfleet designer's knowledge. This is being thought about being installed in future starships build by starfleet. With this being installed in the newer ships the adjuster will be a god send for some of the older ships that cannot be upgraded with better and newer warp cores. The adjustment of the plasma feeding the warp nacelles also increases the efficacy of the ship traveling at warp speed costing 1 power per .25 warp speed factor. The Mid-Range Phase Adjustor takes one hour per SU to install yet with the Enterprise-D it took months to design test and install into the ships plasma grid. The SU's cost dost double on the Enterprise-D as it is the prototype.

The mid range phase adjuster is capable of putting the warp plasma back into phase after its initial plasma adjustments. This adjustment provides 1% more power from the warp core produces all the while the system is active.

Example: Generated off a Galaxy-class as an example of the use to the upgrades from a modified Galaxy-class that we use in some of our games. The differences in a Galaxy-class is that of a ship that can be seen in and mentioned in the shows as creation of Warp Engines.

Propulsion Systems
Warp drive Nacelles: Type 6D <105>
Speed: 6.0/9.2/9.6 [1 power/.25 warp speed]
PIS: Type H (12 hours of Maximum warp) <16>
Impulse Engine 2 Type: Class 7 (.75c/.92c) [7/9 Power/round] <35 x 2= 70>
Location: Engineering section, Starboard and Port Saucer section and base of the neck of the secondary hulls battle head
Reaction Control System (.025c) [2 Power/round when in use] <8>

Power Systems
Warp Engine Type: Class 12/R (generates 630 Power/round) <132>
Location: Engineering section
Upgrades: <24>
Matter/Anti-matter Injection Efficiency Class 3 (+2) (increase in power 2% generation)
Magnetic Constriction Segment Efficiency (+1) (increase in power 1% generation)
Dilithium Crystal Articulation Frame Efficiency (+1) (Increase in power 1% generation)
Auto Dilithium Crystal Re-crystallization system (increase in power 1% generation)
Mid-Range Phase Adjustor
Impulse Engine[s]: 2 class 7 (generates 56 Power/engine/round)
Auxiliary Power: 4 reactors (generates 5 Power/reactor/round) <12>
Emergency Power: Type F (generates 50 Power/round) <50>
EPS: Standard Power flow, +330 Power transfer/round <73>
Standard Usable Power: 767 (This gives the ship 25 points of more power to the ship)

Combat

Using the Starship hit location table. When the impact comes to warp engine use the following to show the damage. The sub-subsystem damage chart used as the damage.

Roll	Sub-subsystem
1-5	warp engine use the chart's noted
6	Reroll for upgrades damaged

Upgrdes damaged
1   Injector Efficacy fails no power increase

2   Damage to the Dilithium Crystal Articulation frame and power increase in lost.
3   Auto Dilithium Alignment lost and power increase lost.
4   Multiple mater streams disrupted and the power increase lost.
5   Auto dilithium re-crystallization lost and the power increase lost and the dilithium crystal may have fractured. (Roll two six sided dice doubles the crystals have fractured).
6   Roll twice for additional damage to the core.

Improved Impulse Engine Power

The need for more Power is always necessary with Starships. In any of the eras, the increase of Impulse Power is the simple upgrade of the engine or the Addition of 5 SU's and the gain of an increase of 8 power per engine and no substantial increase to speed.

In Pre-TOS and TOS eras, the increase in power to the Impulse Engines is 2 SU's for every 3 power.

An Example: A Galaxy-class version Impulse Engines Type: 2 Improved Class 7 (.75c/.92c) [7/9 power/round] <35 +5 =40 x 2 = 80>
Locations: Engineering sections, port and Starboard saucer

Impulse Engine[s]: 2 Improved class 7 (generates 56 + 8 = 64 Power/engine/round)

Starfleet Supplemental Power Cell (a.k.a. a Battery)

This small reactor is capable of storing one hundred rounds of power per cell delivering a constant rate of 10 power per round (icon basic produces 1 power round). This device is the size of a suit case and is portable and rechargeable. These cells are capable of supplying additional power to the ship in an emergency. This device is a storage device only and it does not generate any power on its own. The cell can be attached to the ships power system or even the individual system such as a way to operate the life support with the ships power off line. Their greatest value was to damage control when transporting to a damage ship. Starfleet does not restrict access to these devices as most near all species have version of these devices and they are not weapons.

Most starships have five of these per size above the size of three. These devices can be replicated easily enough and charged from the ships systems in only a few minutes, when extras are needed in larger quantizes. Starfleet field equipment can be charged off these unites.

Landing parties that need powered equipment on the surface of a planet without, the hassle of carrying a larger reactors, that can power the equipment for short durations.   Once placed in line with the power transfer receptacles the device transmits a steady current of power to the ships systems.

These devices can help a ship restart its systems once the ships systems have depleted all the power that is left in the ships own batteries. The device can usually provide enough power to allow the Impulse or warp engines to restart and generate power. Usually the engine restart is done in Space or dry dock facilities where they are supplemented by external power systems.

Note these devices cannot provide enough power to operate the warp nacelles or replace an impulse drive to move the ship but can operate the systems that allow the ships thruster to maneuver the ship.

Nuclear Reactors

SU's Cost: two Structural Unit for every one power generate.
Power Cost: none it draws power from the power it generates only needs 5 power when starting up.

The reactors are highly radioactive and require a lot of shielding to protect those around them form the radiation and frequent testing must be done to ensure that they are not poisoned with radiation. This nuclear reactors is a small reactor compared to a power plant.

A nuclear reactor generates a stead power for years before the reactor needs refueling. When the refueling is done it takes months to make the refueling. The calculation is for every ten point of power the reactor generates equals to one month of fuel. As an example reactor that generates 200 power needs to be refueled around once every one and half years. To refuel the reactor has to be shut down and the old fuel rods removed and the new rods installed taking weeks.

The Nuclear Reactor is touchy and can be caused to shut down in an emergency with a frequency from a starship navigational dish or a mild planetary tremor.

A difficulty test once an hour or if there is a instant that causes the reactor to scram is 10. The difficult in causing a reactor scram is 12 by aiming a ship at the location of the reactor and setting up a resonance wave in the deflector and requires twice the power to the reactor.

A Nuclear Reactor does three times the damage to the power that it generates. A nuclear reactor that is generating 100 power will cause 300 damage and does not include the damage to the reactor itself and the damaging effects will be felt for a half kilometer at full force. Radiation is expelled that covers hundreds of square kilometers around the blast area. Large the reactor the bigger the explosion.

Large Fusion Reactors
SU's Cost: one Structural Unit for every two power generated
Power Cost: None

The Fusion reactors are safer and generate more power than the nuclear reactors. A fusion reactor is capable generating more power for a longer period of time than that of a nuclear reactor.

The Fusion reactor takes more of a beating and rarely scrams as a Nuclear Reactor does. Yet it does happen.

The biggest benefit to a nuclear reactor is that it can be refueled without shutting down and has little deadly radiation. When a fusion reactor fails it shuts down but there are occasions when the reactor overloads and explodes. The reactor build to a point where it explodes with twice the destructive effect of the power it generates. So if the fusion reactor generates 100 power it will cause two hundred damage.

Notes: There are many other types of reactors and can generate power that is needed to power they generally work the same way as a Nuclear or Fusion reactor does but can be fueled with different materials. The reactors can have different effects in radiation or effects on the environments.

Expanded Shields

These notes are taken off the Internet creator not remembers.

Generators are Size x (maximum rating/200). Subtract 190 from the maximum and that is the standard strength for that shield.
Distortion Amplifiers just add a .5 x Size cost and increasing threshold range by 50.
Recharge system adds a .5 x cost and reduces recharge time by 5 seconds.

Expanded SHIELD TABLE
Shield Generator....SU...Protection
Class 1……1 x Size……10 - 200
Class 2……2 x Size……210 - 400
Class 3……3 x Size……410 - 600
Class 4……4 x Size……610 - 800
Class 5……5 x Size……810 - 1000
Class 6……6 x Size……1010 - 1200
Class 7……7 x Size…… 1210 - 1400
Class 8 (Post-TNG)…8 x Size…1410 - 1600
Class 9 (Post-TNG)…9 x Size…1610 - 1800
Class 10 (Post-TNG)…10 x Size…1810 - 2000
Class 11 (Post-TNG)…11 x Size…2010 - 2200
Class 12 (Post-TNG)…12 x Size…2210 - 2400
Class 13 (Post-TNG)…13 x Size…2410 - 2600
Class 14 (Post-TNG)…14 x Size…2610 - 2800
Class 15 (Post-TNG)…15 x Size…2810 - 3000
Class 16 (Post-TNG)…16 x Size…3010 - 3200
Class 17 (Post-TNG)…17 x Size…3210 - 3400
Class 18 (Post-TNG)…18 x Size…3410 - 3600
Class 19 (Post-TNG)…19 x Size…3610 - 3800
Class 20 (Post-TNG)…20 x Size…3810 - 4000
The base SU cost in the table indicates the SU cost for the lowest figure in the "Protections column –for example, 810 Protection for a Class 5 generator. For each +50 (or fraction thereof) beyond that the generator costs an additional +1 SU. Thus, a top-of-the-line Class 5 generator, which provides 1000 Protection, costs 5 x size +4 SUs.

Shield Grid……SU…………Increase
Type 0…………..0……………0%
Type A……….. .5 x Size……..25%
Type B…………1 x Size……..33%
Type C……......2 x Size……..50%
Type D (Post TNG)…3 x Size…66%
Type E (Post TNG)…4 x Size…100%

Distortion Amplifiers…SU………..Threshold
Class Alpha……………1 x Size…..10 – 50
Class Beta……………..1.5 x Size…60 – 100
Class Gamma…………..2 x Size…..110 – 150
Class Delta……………..2.5 x Size…160 – 200
Class Epsilon…………..3 x Size……210 – 250
Class Zeta……………...3.5 x Size…260 – 300
Class Eta……………...4 x Size…...310 – 350
Class Theta……………4.5 x Size…360 – 400
Class Iota……………..5 x Size……410 – 450
Class Kappa (Post-TNG)…5.5 x Size…460 – 500
Class Lambda (Post-TNG)…6 x Size…510 – 550
Class Mu (Post-TNG)…6.5 x Size…560 – 600
Class Xi (Post-TNG)...7 x Size…610 – 650
Class Omicron (Post-TNG)…7.5 x Size…660 – 700
Class Pi (Post-TNG)…8 x Size…710 – 750
Class Rho (Post-TNG)…8.5 x Size…760 – 800
Class Sigma (Post-TNG)…9 x Size…810 – 850
Class Tau (Post-TNG)…9.5 x Size…860 – 900
Class Upsilon (Post-TNG)…10 x Size…910 – 950
Class Phi (Post-TNG)…10.5 x Size…960 – 1000
Class Chi (Post-TNG)…11 x Size…1010 – 1050
Class Psi (Post-TNG)…11.5 x Size…1060 – 1100
Class Omega (Post-TNG)…12 x Size…1110 - 1150

Recharging System…SU…Recharge Speed
Class 0 (Pre-TOS)…0 x Size…75 Seconds (15 rounds)
Class 0 (TOS)…0 x Size…60 Seconds (12 rounds)
Class 1………. .5 x Size…45 Seconds (9 rounds)
Class 2………..1 x Size…40 Seconds (8 rounds)
Class 3………..1.5 x Size…35 Seconds (7 rounds)
Class 4………..2 x Size…30 Seconds (6 rounds)

Cloaking Device Expanded table

Class	SU	Effect
Class 1	3+size	+1 difficulty to detect ship
Class 2	6+size	+2 difficulty to detect ship
Class 3	9+size	+3 difficulty to detect ship
Class 4	12+size	+4 difficulty to detect ship
Class 5	15+size	+5 difficulty to detect ship
Class 6	18+size	+6 difficulty to detect ship
Class 7	21+size	+7 difficulty to detect ship
Class 8	24+size	+8 difficulty to detect ship
Class 9	27+size	+9 difficulty to detect ship
Class 10	30+size	+10 difficulty to detect ship
Class 11	33+size	+11 difficulty to detect ship
Class 12	36+size	+12 difficulty to detect ship
Class 13	39+size	+13 difficulty to detect ship
Class 14	42+size	+14 difficulty to detect ship
Class 15	45+size	+15 difficulty to detect ship

Planetary Shields in Spacedock

Some of the planets have shields capable of stopping nearly any ship from orbital bombardment. The minor shields would be equal to that of a Galaxy class Starship and would cover the entire planet's surface no more than ten kilometers above the thinnest lay of atmosphere about to the altitude of a very low orbiting satellite. The medium high shield would be that of a 10,000 protection and a threshold of 3000. A good high would be twice that of the medium high and an extreme would be 100,000 protection and 30,000 threshold.

Interphasing Generator/Phasing Cloaking Device

SU Cost: As normal cloak, + (3 x size)
Power Coast: 50 power per rating per round

See Notes page 63

Internal Bulkhead Doors

SU Cost: 1 x size
Power Cost: 1 power per round

Heavy pressure doors that are capable of holding back the atmosphere of the planet or vacuum of space from the interior of the ship when there is a hull breach. These act as strength 10 force fields and are placed equally around the ship allow protection from several cabins and critical sections. Older species have used these sections for years before the invention of internal force fields.
This is usually used on ships before they have invented internal force field generator systems

Long-Range Sensors Table

Package	SU	Range (Point blank/short/medium/long)
Type 1	4	High Resolution: 4 Light-years (0.5/0.6 – 1.0/1.1 – 3.0/3.1 – 4.0) Low Resolution: 10 Light-years (1.0/1.1 – 3.0/3.1 – 7.0/7.1 – 10.0)
Type 2	8	High Resolution: 5 Light-years (0.5/0.6 – 1.0/1.1 – 3.5/3.6 – 5.0) Low Resolution: 12 Light-years (1.0/1.1 – 3.0/3.1 – 8.0/8.1 – 182.0)
Type 3	12	High Resolution: 5 Light-years (0.5/0.6 – 1.0/1.1 – 3.5/3.6 – 5.0) Low Resolution: 13 Light-years (1.0/1.1 – 3.5/3.6 – 9.0/9.1 – 13.0)
Type 4	16	High Resolution: 5 Light-years (0.5/0.6 – 1.0/1.1 – 3.5/3.6 – 5.0) Low Resolution: 14 Light-years (1.0/1.1 – 3.5/3.6 – 10.0/10.1 – 14.0)
Type 5	20	High Resolution: 4 Light-years (0.5/0.6 – 1.0/1.1 – 3.7/3.8 – 5.0) Low Resolution: 15 Light-years (1.0/1.1 – 4.0/4.1 – 12.0/12.1 – 15.0)
Type 6	24	High Resolution: 5 Light-years (0.5/0.6 – 1.0/1.1 – 3.7/3.8 – 5.0) Low Resolution: 16 Light-years (1.0/1.1 – 5.0/5.1 – 12.0/12.1 – 16.0)
Type 7	28	High Resolution: 5 Light-years (0.5/0.6 – 1.0/1.1 – 3.8/.9 – 5.0) Low Resolution: 17 Light-years (1.0/1.1 – 6.0/6.1 – 13.0/13.1 – 17.0)
Type 8	32	High Resolution: 6 Light-years (0.5/0.6 – 1.0/1.1 – 4.5/4.6 – 6.0) Low Resolution: 18 Light-years (1.0/1.1 – 6.5/6.6 – 13.5/13.6 – 18.0)
Type 9 EX	36	High Resolution: 7 Light-years (0.7/0.8 – 1.4/1.5 – 5.3/5.4 – 7.0) Low Resolution: 19 Light-years (1.0/1.1 – 6.0/6.1 – 15.0/15.1 – 19.0)
Type 10 EX	40	High Resolution: 8 Light-years (0.8/0.9 – 1.6/1.7 – 6.0/6.1 – 8.0) Low Resolution: 20 Light-years (1.1/1.2 – 6.0/6.1 – 15.0/15.1 – 20.0)
Type 11 EX	44	High Resolution: 8 Light-years (0.8/0.9 – 1.6/1.7 – 6.0/6.1 – 8.0) Low Resolution: 21 Light-years (1.2/1.3 – 7.3/7.4 – 16.0/16.1 – 21.0)
Type 12 EX	48	High Resolution: 9 Light-years (0.9/1.0 – 1.8/1.9 – 6.8/6.9 – 9.0) Low Resolution: 22 Light-years (1.3/1.4 – 7.7/7.8 – 16.7/16.8 – 22.0)

Strength Package	SU	Strength Rating
Class 1	2	1
Class 2	4	2
Class 3	6	3
Class 4	8	4
Class 5	10	5
Class 6	12	6
Class 7	14	7
Class 8	16	8
Class 9	18	9
Class 10	20	10
Class 11	22	11
Class 12	24	12

Gain Package	SU	Test Result bonus
Standard	0	+0
Class Alpha	3	+1
Class Beta	6	+2
Class Gamma	12	+3
Class Delta	24	+4

Coverage Packages: Standard ships sensors cannot detect about 15,000 substances and effects unless they're calibrated for them (see text). However, a ship can reduce this number by -1,000 substances for every 3 SUs (thus making its sensors better), or increase it +1,000 substances for every -2 SUs (thus making them worse).

Lateral Sensors

Strength

Package	SU	Strength Rating
Class 1	2	1
Class 2	4	2
Class 3	6	3
Class 4	8	4
Class 5	10	5
Class 6	12	6
Class 7	14	7
Class 8	16	8
Class 9	18	9
Class 10	20	10
Class 11	22	11
Class 12	24	12

Gain Package	SU	Test Result bonus
Standard	0	+0
Class Alpha	3	+1
Class Beta	6	+2
Class Gamma	12	+3
Class Delta	24	+4

Coverage Packages: Standard ships sensors cannot detect about 15,000 substances and effects unless they're calibrated for them (see text). However, a ship can reduce this number by -1,000 substances for every 3 SUs (thus making its sensors better), or increase it +1,000 substances for every -2 SUs (thus making them worse).

Navigational Sensors

Strength

Package	SU	Strength Rating
Class 1	2	1
Class 2	4	2
Class 3	6	3
Class 4	8	4
Class 5	10	5
Class 6	12	6
Class 7	14	7
Class 8	16	8
Class 9	18	9
Class 10	20	10
Class 11	22	11
Class 12	24	12

Gain Package	SU	Test Result bonus
Standard	0	+0
Class Alpha	2	+1
Class Beta	4	+2
Class Gamma	8	+3
Class Delta	16	+4

Sensor Enhancements

These are additional packages to add to the sensor systems. These can be placed on both starships and space stations and automated probes ships.

Astronomical Observation Package (+1 bonus) [+1 power] <Two additional SU>

This gives the sensors a telescopic imaging system much like that of a telescope for such as stellar objectives. This is an enhancement for the Long-range Sensors only. Cannot be added to that for combat be used in detecting a starship.

Planetary surface analysis Package (+1 bonus) [+1 power] <Two additional SU>

Gives the ship a better ability to scan the surface of a planet surface and sub-surface geology. This gives the average sensors the ability to detect the specific mineral in the surface crust within millimeters. This allows for the surface to be scanned far more efficiently and effectively cutting the time to scan the surface in half. (22nd century it would take a standard Sensor 10 rounds to scan one Square Kilometers, the 23rd century it would take a standard sensor 7 rounds to scan one square kilometers and then the TNG era would take standard Sensors would take 4 rounds.) This is a Lateral Sensor enhancement.

Graviton detector Package (+1 bonus) [+1 power] <One additional SU>

Lateral and Navigational Sensors can detect weak and stronger gravity stresses than normal sensors. This gravitational detector can pick up the minute distortion in the gravimetric field of a planet and solar system depending on whether lateral or Long-range sensor.

Particle Migration Detector Package (+1 bonus) [+1 power] <One additional SU>

A lateral sensor enhancement detects a single or group of particles movement through a nebula while within range. In normal space the particles can be used as methods of tracking a starship. The detection of particles can determine the size of a planet in the future or the danger material as it collects. This sensor enhancement is designed for the Lateral sensors.

Tunneling Neutrino Sensor Package (+1 bonus) [+2 power] <Three additional SU>

The tunneling neutrino sensors will probe deep into subspace and spatial anomalies. This is a directional sensor that will have an ability to detect a multiple of natural and artificial energy detection within the spatial anomalies. Neutrino's that are considered to be

hazardous and early detection could mean that the ship can be kept safe. The detection of a Neutrino surge could mean that a cloaked ship is nearby. This is another Long Range and Lateral Sensors enhancements.

Exotic Matter Detector Package (+1 bonus) [+1 power] <One additional SU>

This allows better detection of exotic matter and the hard to detect Dark Matter materials. This will allow the ship to avoid or discover new exotic materials. Many forms of exotic matter could be hazardous to humanoid life-forms. Some forms of exotic matters is used in interstellar vehicles as a form of FTL propulsion. This is another Lateral Sensor enhancement.

Enhanced EM Radiation detector Package

(+1 Bonus) [+1 power] <One additional SU>
This will allow the sensors to detect lower levels of electro-magnetic radiation than standard. The many variations of the EM radiation that can affect the life-forces known to the technology known by man with in the predetection. This is another Lateral Sensor enhancement.

Gaseous anomaly detection Package (+1 Bonus) [+1 power] <One additional SU>

This allows the Terraforming Analyzing of planets that can be studied. These enhancements allow the search for microscopic life form. Much of the anomalies that can be detected will show the path of future evolution. This is yet another Lateral Sensors enhancement.

Neutrino Detection Package (+1 Bonus) [+1 power] <One additional SU>

This can track individual Neutrino particles that are fast and traveling in odd directions. Many stellar anomalies emit neutrinos out of the event horizon. Neutrinos are hard partials to track. This is a Lateral Sensor enhancement to the sensors used in more than just standard sensors but can detect Temporal Sensors.

Sensor platform and Sails and pods

SU's cost: 10 time size + 10 per weapons system installed
Power Cost: 1 x size

The sensor platform and be placed over the ship such as the Nebula and under like the Oberth class. Do to the larger sensor system there is a (+1). While active the ship has an increased chance of being detected by other vessels on long range sensors, yet if not being looked for the ship can detect another vessel at a greater range. During the time the sensors are active the range is increased by 10%. When the sensor platform is turned off the sensors return to the normal scanning distance. The sensor platform provides information to all sensors long-range, lateral and navigational and even the temporal sensors if the ship has them.

Example: the maximum range of the Nebula class sensor a typical type 7 is 17 light-years, while the platform is active on a Nebula-class starship would be now be 18.7 light-years. While the Nebula class Gain Package is a Class Beta (+2) while active the sensor gain would be a plus three. The individual sensors do not require any more power than that of the normal scans.

The Nebula class has at least one photon launcher installed the SU's would cost an additional 10 SU's to the cost of the Platform as well as the cost of the weapons systems.

A vessel with embedded nacelles installed with the sensor platform looses the embedded nacelle bonus to the shields.

The only major drawback is that after every so often the sensor sails must be recalibrated or the detection begins to detect sensor ghost and inaccurate scans at longer distances putting the sensor enhancements out of service for days unless more crews are place on the job.

The recalibration cycle is dictated by 10 x SU's of the Sensor Platform requiring the need to recalibrate the sensors taking time of recalibrating 2 SU's per hour. The nebula class would take 1.8 days to complete. To determine the need to recalibrate is figured at x 30 hours of the SU's of the sensor platform. During a combat situation any impact to the sensor platform or sail will trigger the need for an automatic Sensor Recalibration of the Platform or Sail.

There is a glitch with the ships shields that every so often there is small window that allows a momentary breach in the shields. This is not a combat weakness but the weakness will allow a transporter beam to enter and transport one person or object onto the ship or off. This weakness occurs every 5 x the SU's of the Sensor platform in rounds. For a Nebula-class it figures that every 7.5 minutes the window appears. Unless an observer is watching the sensors closely the window appears as a glitch in the shield that is hardly worth noticing the weakness. This secret weakness is a closely guarded secret to Starfleet and the ships that use this type of sensor enhancements.

Example: This would have been the Sensor systems with a platform for a Nebula-class starship.

Sensor Systems

Long-range Sensors [6 Power/round] <56>
Range Package: Type 7 (Accuracy 3/4/7/10)
High Resolution: 5 Light-years (.5/.6-1.0/1.1-3.8/3.9-5.0)
Low Resolution: 17 Light-years (1.0/1.1-6.0/6.1-13.0/13.1-17.0)
Strength Package: Class 9 (Strength 9)
Gain Package: Class Beta (+2)
Coverage: Standard
Astronomical observation package (+1)

Lateral Sensor [9 Power/round] <31>
Strength Package: Class 9 (Strength 9)
Gain Package: Class Beta (+2)
Coverage: Standard
Planetary Surface analysis package (+1)
Graviton detector package (+1)
Particle migration detector package (+1)
Exotic matter detector package (+1)

Navigational Sensor [5 Power/round] <25>
Strength Package: Class 9 (Strength 9)
Gain Package: Class Beta (+2)
Graviton detector package (+1)

Sensor platform (+1) [7 power/round used] (forward and aft Photon torpedo launcher) <90>

Probes: 100 probes of varying types
Sensor Skill: 5

Notes: Ships such as two versions of Nebula and the Oberth classes have such sensor platforms installed on them. There are likely others that have them as well. This was developed out of requests from the players on the ability to upgrade and add different systems to the ship while in layovers at starbase's.

Sensor Jamming Device

The Sensor Jamming device is nothing new as there are many ways to jam a sensor scan with the use of flooding space with specific partials while other natural emissions emitted from the other stellar phenomena. This device cuts the need to emit these special particles out with the generation of an electromagnetic fields. This adds difficulty to the standard difficulty of the scanning rolls. These devices are clearly an illegal device and prohibited by most space traveling species, as it can be a powerful tool in to criminals. Military Grade Lateral Sensors can detect the source of the jamming devices but nothing much more than that while security vessels and civilian vessels can detect the jamming but not much else while long-range sensors can detect nothing in the area but without explanations. These devices can be placed into a probe or even a small craft that can be dropped allowing the vessel making the deployment to escape the area. The jamming system works with the weapons targeting systems as well as the sensors systems making it almost imposable in targeting a specific target with the sensors.

Class 1 (difficulty increase +3) [4 power/use] <20>
Class 2 (difficulty increase +6) [8 power/use] <30>
Class 3 (difficulty increase +9) [12 power/use] <40>
Class 4 (difficulty increase +12) [16 power/use] <50>
Class 5 (difficulty increase +15) [20 power/use] <60>
Class 6 (difficulty increase +18) [24 power/use] <70>

Other Species Space Travel

Hyperspace

The realm of hyperspace is another version of subspace where a starship can enter via a dimensional rupture or rip. This space is a dangerous place with movements such as the ocean tidal forces and streams. Such travel will be as fast as traveling at warp speed through normal space.

To enter hyperspace through a rupture or rip the ship needs to generate an opening with use of an onboard or a stationary position. The onboard a ship would require tremendous energy. Such openings can be generated using a Jump Engine (Babylon 5) or the specially created matrix in the Navigational Deflector to open an open into hyperspace.

Hyperspace Jump engine

SU's cost: 10 time the size of the ship
Power cost: 10 times the size of the ship per round of use.

Opens an entry into another region of space known as hyperspace (or a version of subspace). Opening a jump point takes one round and one round to enter, usually lasts another two rounds after the vessels have passed into the void beyond.

Traveling in hyperspace a vessel travels at impulse speed but in real space they would be traveling faster-than-light. (Converting down space from 1 light-year to hyperspace. it equals 100,000 MU's per Light year of travel. At a quarter impulse the ship traveling one light-year would take four years in normal space and in hyperspace and would take five hours in hyperspace.)

The opening is over 1 kilometer in diameter and more than three in length allowing more than one ship to pass through the opening. A jump opening has a resistance of 300 to all weapons unless the weapons have a specific modulation. Modulating the weapons has a difficulty of 13 and takes three rounds to perform the adjustment. Any ship caught in the opening when the opening collapses is destroyed instantly. A vessel traveling hyperspace cannot be detected by a vessel in normal space or vice versa.

(*Crossover notes: A modulated spread of Photon Torpedoes can disturb the normal stability of an open jump point collapsing the opening.*)

Sensor

While in hyperspace long-range sensors are not capable of detecting anything farther than the Lateral sensors. The lateral sensors are capable of detecting much of the same objects as if they are in normal space. There are however one hundred thousand additional substances and phenomena's that cannot be detected or have even been discovered.

Yet while traveling in the Babylon 5 universe's Hyperspace the ships follow subspace beacons that guide the ships to the next jump points. The travel to one system to another may take the vessel through three or more jump routes. Larger military vessels may be the only ships that are willing to travel too far off the hyperspace routes as they can open their jump point.

Commercial hyperspace routes are usually five to ten light years in distance to a transfer point. Once arriving at the transfer point the ship reenters normal space through a jump gate and travels to another jump gate to reenter hyperspace and travel to another jump gate where their destination may be. Theses jump gates could be a half AU apart from one another.

Traveling a jump route can cost 750 credits to more than twice that to travel even more dangerous routes. The jump point transfer area's are a favorite hang out of raiders and pirates. At a jump point the sight of several other ship of cargo and civilian transport. A military ships may be presence.

Hazards of Hyperspace

Although species have used Hyperspace for centuries and it is done with regularity that few ships are lost as long as they stay on the navigation beams. The ship traveling through hyperspace there are currents that shift direction. When starships engines are disabled the ship will be pulled along with the current till they are no longer able to detect a navigational beacon.

Battles in hyperspace have always had disastrous effects for both sides. The fluid rebound from weapons can cause as much damage to a starship as to the vessel attacked. The unpredictable affects of hyperspace can cause weapons to detonate prematurely or their targeting systems miss by their targets.

Life in Hyperspace

Though it has not been discovered there are living creatures living in hyperspace that are rumored to eat starships the same as sea monsters in olden times, but most are harmless and would not even notice the presence of the ship unless provoked.

Babylon 5 Interceptors

In the Babylon 5 universe the interceptors are fired out too and intercept the incoming fire from the attacking ship. The fire is detonated and does not strike the ship or station.

We had been handling the weapons fire like it was normal fire and it figured out that only 20% was intercepted in all of the rounds. This was not working well for the battles and was in need of modifications.

I reviewed the rules in the First and Second Edition of the Babylon 5 RPG and the Babylon 5, A Call to Arms Space Combat. The rules are either or for interceptors for the game. I made adjustments to the rules for Spacedock. I came up with two sets of rules that I have not instituted either yet.

Rule One

Rolling a dice and adding the weapons skill to and anything over 8 succeeds and the incoming weapons fire if ignored but yet the interceptor's fire does not cause any damage to the target but when the fire is directed against another vessel or station does the designated damage but cannot intercept incoming fire either.

Or……

Rule Two
    Rolling a dice adding in weapons skill to determine success, use the chart below to determining success of the interceptors.

Success…..Result
8…………..All intercepted but two shots.
9…………..All intercepted but one shot.
10…………All intercepted but one shot every other turn.
12…………All intercepted

Mark I Interceptors get an automatic bonus of plus one.

Mark II Interceptors get an automatic bonus of plus two.

I made the interception lower but high enough to allow for failure.

In generating the Interceptors I created them just as I would for any other weapon and the only difference is that the weapon is operated and uses power just as it would normally would. As long as the interceptors are firing a full barrage the interceptors do not have any penalty. The interceptors fire five rounds and if it fires short of a single round it automatically gets a plus two to

difficulty and then if it is short two rounds it gets plus there difficulty and so on.

However a ship moved into one MU of the source of the Interceptors begins to receive damage for the Interceptors one shot per every three fired on the incoming weapons and this also increases the difficulty of intercepting incoming fire by one.

Emergency Stasis units
SU's Cost: 60 per 1 SU
Power cost: 1 power per SU
    Though they are much like the cryogenic suspension chambers Starfleet, sickbays carry a few of these units for emergencies. The units can maintain the body of a person inside for months if needed until the ship can return to a dedicated medical facility. Although the Federation was not the first to construct the units, they constructed the units in the 23rd century for the long-range exploration vessels that were in the planning phase. Much of the data that the Federation used to construct the stasis units came from alien technology that was recovered from an alien ship.
    These units can be found across the galaxy still in use after centuries on planet where the surface has been devastated. It is the thoughts of the Federation science council that the units can maintain a person indefinitely if it is kept in good condition. Once the unit's age reaches the extreme, range the units chance of failure increases by one each ten centuries of age after 50 centuries.
    A single unit can be detected from space but it is difficult. The sensor operator must be looking for it. Large quantizes of these units emit an easier detectable signal. Some worlds have great underground cavernous that house millions of the units and unless shielded the emissions can detect the units.
    Star ships can construct these units by replicating them from the ships memory and installing them in the ship. The units require two cubic meters of space per unit.

Processor/Ore Refinery
SU's Cost: Size + 10 for processor, +2 for additional product produced, + 10 for a fully automated systems, +2 SU's for the computer monitoring.

Power Cost: Equal to the SU's for power.
    Build much like the Terok Nor/Deep Space Nine space station in orbit of the home planet of Bajor, this is station was used during the Cardassian rule to strip mining the planet. Each of these processors required four crewmembers per 1 SU.

Example: The Cardassian Ore Processing Space Station, Terok Nor with its six ore processors and a single processors with 22 SU's, would have 88 forced Bajoran laborers working the processors many functions. With six processors operating at the same time would bring the Bajoran laborers up to 528. For the processor operation of feeding the processor, monitoring the individual operations of the processor and handling the finished products and storing the materials into the cargo holds.

When active these processors could produce one kilogram of useable product per round per SU's cost. This would allow production of over fifteen tons of processed ore per hour for Terok Nor for a single processor, with the three producing 45 tons. Oddly these Terok Nor Processors cold easily process over 1000 tons in a 24-hour period. One could estimate that at least once a day a cargo ship would arrive to haul off the product while others freighters would be arriving to deliver at least two loads of ore per day.

Processors can be processing only one kind of material at any time with an additional material made from the impurities taken from the ore with the cost of two SU's. This does not reduce the tonnage processed but GMs will decide on the percentage. If it was me I would say that each ton of ore processed twenty percent would be impurities in the ore that would have to be dealt with by removing and eight percent would be hazardous materials that would have to be stored and two percent for anything else that could come up to you.

The United Federation of Planets tends to use fully automated processor systems and requires only one person per 2 SU of processor. Example: If the Federation installed the automated processor in the DS9 at 32 SU's would have a crew of 16 workers instead of the 88. This system can also be completely run by a computer system with the addition of 2 SU's and then where no personnel would be needed.

The different types of processors can be processing everything from mineral ores to rare gasses, food processors converting animal and grown food from their raw forms to the eatable forms. In Alien the Commercial Starship Nostromo 180924609 a towing tug pulling a cargo pallet with automatic processors.

Here is the add in for the Terok Nor space station Ore Processor: 3 processors units (15 kilos/round) [22 power/round] <22 x 3 = 66>

House rule: Hand-Held weapons damage versus ship weapons damage
In contrary to Spacedock rules (page 125 of spacedock) the break down is divided down by ten. It is stated that the hand phaser can destroy a small size two shuttlecraft. The hand phasers can vaporize all but just over fifteen percent of the shuttle but it virtually makes the shuttle worthless to use.

A number of small charges placed on the hull of the shuttle or spacecraft can cause damage that can destroy a ships ability to travel in space. An explosive charge placed strategically about the power centers of the craft can cause collateral damage.

Mining Phaser
The Federation Mining Colonies that have deep mines where they dig out precious materials deep underground use the mining Phasers to tunnel. The phaser drills can vaporize solid rock barring the miners from the ore that is desired. These phasers are also carried on many Federation starships for emergency situations.
Setting: 1-16
Range: 5/40/80/150
Size: height 1 meter
Mass: 2 kg
Energy: 5000

Explosive Charge
A common explosive charge that can be found across the Federation and with its advisories. A series of a series of several charge can cause a warp core breach destroying the ship. These charges can be placed and secured to the surfaces and need a special cutting tool to remove from the surface. The timer can be set up to twenty-four hours or detonated with a remote detonator. These charges carry a small amount of explosives while a similar special charge. The Klingon version have a small amount of anti-mater incorporated into the charge. With the use of a force field build into the charge forces the blast in one direction. Protecting anything nearby the charge reducing the detonations collateral damage.
Size: 12.7 cm diameter, 4 cm thick
Mass: .25 kg
Damage: 50 (1 damage in spacedock)

Spatial Charge

Not so much a common explosive charge but it can be found across the Federation and with its advisories military armories. A single charge can cause a warp core breach destroying the ship. These charges can be placed and secured to the surfaces and need a special cutting tool to remove from the surface. The timer can be set up to twenty-four hours or detonated with a remote detonator.
Size: 12. cm diameter, 3.5 cm thick
Mass: .2 kg
Damage: 500 (10 damage in spacedock)

Detonation Suppression emitters

The Detonation suppression emitters prevent the destructive force of an explosive charge and a secondary detonation from damaging neighboring structures and items. The suppressors can project a temporary field that prevent the force of a blast from damaging any neighboring structures. These are single use devices designed to be used in combat to prevent the fighting forces from being hurt by explosives. This device is connected into the use of small charges.
Size: 20 x 12 x 10 cm
Mass: .5 kg
Charge: 10

Emergency and Planetary Shelters

These prefabricated shelters are made from panels that are stored in the ship's cargo hold and can be constructed in an hour. The structure has a small kitchen and dining living area with accommodations for two to four personnel. Larger versions for families with children can be replicated by a starship with a Fabrication or Replicator system. There is a functional Food Processor or Replicator and small fusion reactor to power the lights. This is the standard design for Federation starships to carry. The average Federation starship will carry anywhere from six to thirty-six of the shelters for emergencies. The occasional away team uses these same shelters for long-term planetary studies on planets where colonies could be constructed. Even the uses of temporary structures for the use of the first colony construction members are provided a shelter. These shelters are a composite of materials that are found on many planets and will last several decades before disintegrating completely leaving no traces of ever have been there.

The shelter panels are the size that a single individual can construct on their own but it is simpler if there are two or more persons. The panels are anywhere between 1.5 meter by 2 meter pieces. The panels can be constructed with the beige or the metal gray exterior on the inside or out sides. The parts are marked for the construction with notes that fade within days of completions.

The shelters are storable in containers that are used as a part of the shelters.

Size: 6 x 5 x 2 meters (322.9 square feet of living space)
Mass: 500 kg
Duration: 1 year (longer with resupplies)
My notes such use of this device in basic Icon against such things as tunnel walls and buildings can be devastating. D&D building specifications are used as a base as the walls and buildings.

Dynamite (*Nitroglycerine and liquid version***).**
Damage: 24 per stick or bottle Icon (1 Spacedock (or my version of Spacedock 1 damage per stick)
Range: 10 meter.
Size: 25 cm diameter x 4 cm thick
Mass: .1 kg
Energy: one explosion.
Notes: In multiples, the Dynamite can cause severe damage to the hull of a starship. Dynamite can be detonated by either a fire-burning fuse or an electrical blasting cap. A phaser blast or bullet from a handgun can detonate the explosive. *Nitroglycerine is an unstable material that can be detonated by just a minor jostling.*

Black powder keg
Damage: 84 per barrel Icon (2 Spacedock (or my version of Spacedock 4 damage per stick)
Range: 10 meter.
Size: 30 cm diameter x 60 cm height
Mass: 10 kg
Energy: one explosion.
Notes: In multiples, the a keg of black powder can cause severe damage to the hull of a starship. Black Powder is a powder and explodes under flame. *The fires can detonates the kegs before anything happens.*

Starfleet Weapons (House Rules)

These are some of the missile and torpedo weapons that the Federation has employed as weapons. There have been some modifications to the weapons here and the damage that they can produce. Note all weapons are stored as they are noted here cost .5 SUs per 5 torpedoes to store unless noted differently.

The first real weapons a ship can carry are the missile weapon that can cause damage to another starship. Until the creation of the Photonic and Photon weapons, the missiles/torpedoes did collateral damage to the ship. The Photonic and Photon torpedoes can be used to destroy a small target with a single weapon or in a spread of multiple torpedoes without damaging neighboring parts of the ship.

Spatial Torpedoes or Spatial Charges
Range: 2/5,000/16,000/50,000
Accuracy: +0
Damage: 50 - 100
Notes: these 22nd century weapons are launchers are constructed much like those of the standard Photon Torpedo Launchers however spatial charges are just lobbed out a short distance from the ship and this lancher is not as elaborate and are lobbed to within a kilometer of the ship the system uses 10 + 5 power to launch.

Mark I Nuclear rockets
Range: 5/150/750/3000
Accuracy: -1
Damage: 120
Notes: Some of the earliest weapons carried by Terrain Starships. Several of these weapons were used as self-destruction devices for centuries. The deadly levels of radiation from these weapons tend to kill humanoids after length exposure and tend to last for hundreds of years.

Mark II nuclear Rocket
Range: 5/200/1000/5000
Accuracy: -1
Damage: 135
Notes: some of the earliest weapons that can be used by a starships. Several of these weapons were used as self-destruction devices for centuries. The deadly levels of radiation from these weapons tend to kill humanoids after length exposure and tend to last for hundreds of years.

Mark III Nuclear Rockets
Range: 6/300//2500/8000
Accuracy: -1
Damage: 150
Notes: some of the earliest weapons that can be used by a starships. Several of these weapons were used as self-destruction devices for centuries. The deadly levels of radiation from these weapons tend to kill humanoids after length exposure and tend to last for hundreds of years.

Photonic Torpedoes or Primitive Photon Torpedo
Range: 10/20,000/60,000/200,000
Accuracy: +0
Damage: 120*
Notes: The 22nd Century Primitive Photon Torpedoes can travel up to warp 1.0 for duration of their range. This weapon is the first in the weapons that have variable yields capabilities.

Type I Photon Torpedo
Range: 15/100,000/400,000/750,000
Accuracy: +0
Damage: 160
Notes: Version of this torpedo has been used by many space going races for several generations with little variations in designs from one another in yields or ranges.

Type II Photon Torpedo (23rd century variant)
Range: 15/300,000/1,000,000/3,500,000
Accuracy: +0
Damage: 200
Note: The first real change in Photon Torpedo designs that will be lasting for more a hundred years. This weapon is the first in the weapons that have variable yields capabilities.

Type II Photon Torpedo (24th century variant)
Range: 15/300,000/1,000,000/3,500,000
Accuracy: +1
Damage: 200
Notes: The lasting launcher the major change is the accuracy being able to strike the designated target. This weapon is the first in the weapons that have variable yields capabilities.

Type III Photon Torpedo
Range: 15/300,000/1,000,000/3,500,000
Accuracy: +1
Damage: 230

Notes: This weapon is the first in the weapons that have variable yields capabilities.

Type IV Photon Torpedo
Range: 15/300,000/1,000,000/3,500,000
Accuracy: +2
Damage: 300
Notes: This weapon is the first in the weapons that have variable yields capabilities.

Type V Photon Torpedo
Range: 15/300,000/1,000,000/3,500,000
Accuracy: +2
Damage: 350
Notes: This weapon is the first in the weapons that have variable yields capabilities.

Type VI Photon Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +2
Damage: 500
Notes: High yield launcher needed and torpedoes have atmospheric capabilities. This weapon is the first in the weapons that have variable yields capabilities.

Type VII Photon Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +2
Damage: 350
Notes: High-Yield launcher needed. This weapon is the first in the weapons that have variable yields capabilities.

Type VIII Photon Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +2
Damage: 300
Notes: High-yeild launchers needed. This weapon is the first in the weapons that have variable yields capabilities.

Type IX Photon Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 250
Notes: This weapon is the first in the weapons that have variable yields capabilities.

Type X Photon Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 400
Notes: High Yield Launcher needed and torpedoes are atmospheric capable. This weapon is the first in the weapons that have variable yields capabilities.

Tricobalt Devices
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 750
Notes: High Yield Launcher needed and torpedoes are atmospheric capable but is not strictly a combat weapon and do to the type of weapon that it is, it is a single spread launch weapon. These are slow moving sub-light weapons and can be used to crack extremely dense asteroids into smaller pieces or devastate large facilities. This weapon is the first in the weapons that have variable yields capabilities.

Mark I Quantum Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 400
Notes: No High Yield Launcher needed and torpedoes are atmospheric capable. The sleeker constructed casing than the standard Photon Torpedo casing. This weapon is the first in the weapons that have variable yields capabilities.

Mark II Quantum Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 450
Notes: High Yield Launcher needed and torpedoes are atmospheric capable. This weapon is the first in the weapons that have variable yields capabilities.

Mark III Quantum Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 500
Notes: High Yield Launcher needed and torpedoes are atmospheric capable. This weapon is the first in the weapons that have variable yields capabilities.

Mark IV Quantum Torpedo
Range: 15/350,000/1,500,000/4,050,000
Accuracy: +3
Damage: 600
Notes: High Yield Launcher needed. This weapon is the first in the weapons that have variable yields capabilities.

Chroniton Torpedo
Range: 15/400,000/2,000,000/5,000,000
Accuracy: +3
Damage: 300
Notes: High Yield Launcher needed and are capable of passing through the shields of a starship. This weapon is the first in the weapons that have variable yields capabilities.

Multiple warhead Torpedoes (can be used by the Federation in the 24th century (2390) as seen in Star Trek XI used by a Romulan Warship)
Range: 15/300,000/1,000,000/3,500,000 km
Accuracy: usually the Class alpha and Beta or Gamma when it becomes available
Damage: use ten microtorpedoes that are deployed at less than one hundred kilometers and independently target different section of the ship's hull 50 damage per microtorpedoes
Notes: this is a high yield weapon and has good atmospheric capabilities.

Antimatter Container
Though not really a missile or torpedo an Antimatter container can be deployed from the ship and detonated in proximity of the trailing ship with the use of a Photon torpedo. The container breaches and the resulting explosion is 2d6x100 damage for all the ships in the MU and drops off by half for the next and then half for the next and so on buy the time it reaches the fourth MU the damage is too low to cause any real damage.

Tricobalt Device
Range: 5/350,000/1,050,000/4,050,000 km
Accuracy: usually the Class Beta or gamma
Damage 750
Notes: though like the anti matter container it is not a weapon but can be utilized as one. Storage for such a device cost 2 SUs per device and requires a high yield launcher to fire. Note that these are highly volatile devices and can be detonated early in battle if there is direct hit.

Antimatter Mines
The mine that is equal to that of a Type II Photon Torpedo with a detonator that will detonate it when it comes in contact with shields or the hull. It remains in place with the thrusters.

Klingon Cloaked Mines
It uses a Class 10 Claoking device and does 1000 damage. They remain inactive untile they recive a coded signal.

Gravimetic Mines
They operate like those of the gravimetric torpedoes

Self-Replicating
Consisting of duranium cargo containers and off the shelf photon torpedo parts and replication technology.

Spatial and subspace charges
They are deployed to an area as the ship passed thought the area and they work like other mines. The nine does

120 damage. A ship can store up to 30 charges per 1 SU.

Pre-TOS Missile Weapons
Apparently, fans are not exactly of one mind whether the Federation has some sort of Photon Torpedoes during this time period. So, I have put together a chart for a primitive type of Torpedo Launcher and another for rockets / missiles.
Rockets / missiles should be faster than the fusion impulse drives that starships use. However, their accuracy is less than that of Photon Torpedoes. As compensation, rockets / missiles can often pack a much greater wallop.

Type of Launch Tube	Spread	SU Cost	Power Cost
Small Missiles	3	5	1 power/rocket fired
Medium Missiles	2	5	3 power/rocket fired
Large Missiles	1	15	6 power/rocket fired

Special rules for Large Missiles
Large Missiles can also be magnetically attached to the hull of some ships. Thus, many ships will not have large missile launchers. It takes three rounds for a missile so attached to a vessel to really get going. Therefore, it is most vulnerable during these three rounds. A large missile can be considered a size 1 ship with a resistance of 1. If the firing ship receives sufficient damage while the missile is in flight, the weapons officer must make a challenging roll to keep it on target.

Type and number / SU Cost / Damage / Accuracy / range
Small Missiles 12 rockets / 1 SU /Damage 10 / 6/7/9/12 5/15,000/35,000/50,000

Medium Missiles 4 rockets / 1 SU /Damage 35 / 5/6/8/11 10/30,000/70,000/100,000

Large Missiles 1 rocket / 10 SU /Damage 80 / 4/5/7/10 15/60,000/140,000/200,000

TNG Type II Photon Torpedo Damage levels

Level	Damage	Sensor difficulty	
1	8	1	4%
2	16	2	8%
3	24	2	12%
4	32	3	16%
5	40	4	20%
6	48	5	24%
7	56	6	28%
8	64	6	32%
9	72	7	36%
10	80	8	40%
11	88	9	44%
12	96	10	48%
13	104	10	52%
14	112	11	56%
15	120	12	60%
16	128	13	64%
17	136	14	68%
18	144	14	72%
19	152	15	76%
20	160	16	80%
21	168	17	84%
22	176	18	88%
23	184	18	92%
24	192	19	96%
25	200	20	100%

TOS ERA Type I Photon Torpedo levels

Level	Damage	Sensor	Difficulty
1	8	1	5%
2	16	2	10%
3	24	2	15%
4	32	3	20%
5	40	4	25%
6	48	5	30%
7	56	6	35%
8	64	6	40%
9	72	7	45%
10	80	8	50%
11	88	9	55%
12	96	10	60%
13	104	10	65%
14	112	11	70%
15	120	12	75%
16	128	13	80%
17	136	14	85%
18	144	14	90%
19	152	15	95%
20	160	16	100%

TNG Era Type I Quantum Torpedo

Level	Damage	Sensor difficulty	
1	8	1	2%
2	16	2	4%
3	24	2	6%
4	32	3	8%
5	40	4	10%
6	48	5	12%
7	56	6	14%
8	64	6	16%
9	72	7	18%
10	80	8	20%
11	88	9	22%
12	96	10	24%
13	104	10	26%
14	112	11	28%
15	120	12	30%
16	128	13	32%
17	136	14	34%
18	144	14	36%
19	152	15	38%
20	160	16	40%
21	168	17	42%
22	176	18	44%
23	184	18	46%
24	192	19	48%
25	200	20	50%
26	208	21	52%
27	216	22	54%
28	224	22	56%
29	232	23	58%
30	240	24	60%
31	248	25	62%
32	256	26	64%
33	264	26	66%
34	272	27	68%
35	280	28	70%
36	288	29	72%
37	296	30	74%
38	304	30	76%
39	312	31	78%
40	320	32	80%
41	328	33	82%
42	336	34	84%
43	344	34	86%
44	352	35	88%
45	360	36	90%
46	368	37	92%
47	376	38	94%
48	384	38	96%
49	392	39	98%
50	400	40	100%

Enterprise Era Spatial Torpedoes

Level	Damage	Sensor difficulty	
1	8	1	10%
2	16	2	20%
3	24	2	30%
4	32	3	40%
5	40	4	50%
6	48	5	60%
7	56	6	70%
8	64	6	80%
9	72	7	90%
10	80	8	100%

Enterprise Era Photonic Torpedoes

Level	Damage	Sensor difficulty	
1	8	1	7%
2	16	2	13%
3	24	2	20%
4	32	3	27%
5	40	4	33%
6	48	5	40%
7	56	6	47%
8	64	6	53%
9	72	7	60%
10	80	8	67%
11	88	9	73%
12	96	10	80%
13	104	10	87%
14	112	11	93%
15	120	12	100%

Torpedoes

The Standard in torpedo weapons are the typical are all torpedoes are atmospheric capable and multiple yield weapons. These include the Quantum Torpedoes. *(Spatial and Photonic Torpedoes)*

Detonation Yield Increase

Photon and Quantum Torpedo yields can be increased with a technical difficult of 12. The yield can be increased by fifty percent and all past that the difficulty increases by 1 per 10 percentage past fifty percent.

The maximum yield increase is that of double what of what the original yield was.

Screwing around with Alien torpedoes is difficult and is an additional 2 to the difficulty of the adjustments.

Yield adjustments to the torpedo takes one hour of work and additional five minutes past fifty percent for the adjustment of the torpedoes. *(Spatial and Photonic Torpedoes cannot be increased).*

Live Warheads

Deactivating a live warhead after it has impacted the hull of the ship or somewhere is a difficulty of 14, with an increase of 2 for rushing time limit.

Note: These rules do not apply to the Romulan Plasma torpedoes, as they are not really a self-propelled missile but a plasma field.

Sensors and Torpedoes detonations

With each detonation the sensors are momentarily blinded for a one round. If the result of the sensor roll is lower than the sensor difficulty on chart. In combat this blinding can be used as an advantage or disadvantage depending on whose side you are on.

Torpedo Adjustments

Some torpedoes can be adjusted with a frequency modulator to increase the damage to unshielded targets. Much of these frequencies can be adjusted from the tactical station on the bridge or torpedo launch bay with a moderate challenge.

More specific detonations lengths such as a photon flare. For each additional round of illumination increases the challenge roll and requires the access to the interior of the photon torpedoes casing.

Torpedo speed

A torpedo will only increase in speed by .75c of that of the ship, but if fired at sub light speeds the torpedo will never achieve warp speed. (reference *ST: TNG Technical Manual, Sternbach & Okuda Pg. 129*)

Subspace Rifts and Temporal Anomalies

The interaction of photon Torpedoes and local subspace matter can cause the creation of subspace rifts and temporal anomalies. GM's have the right to determine when the roll must be made for the play.

To determine whether a rift or anomaly has formed the roll of 2d6 are added to the number of photon torpedoes fired in the area and divided by the number of ships involved in the combat and plus the ships size if one is destroyed or self-destructs. Round down.

Example: during two ship combat sixteen photon torpedoes are fired and the roll result of twelve divided by two gives a result of fourteen and there is a Subspace disturbance.

Temporal Notes

Photon, Quantum, and Spatial torpedoes cannot be used purposely to open a temporal rift into subspace.

If a Temporal Rift is opened the temporal travel are determined by the following, 2d10 and a 1d6 are rolled. Rolls are zero through nine and the six sided. The two dice are multiplied to give the exact number of years once the ship has traveled through the rift. The 1d6

rolled the same time as 2d10 tells if the rift takes the ship to the past or future (evens past, odds future).

Example: the roll of 5 and 9 from the 2d10 giving the time travel time distance of forty-five years and the 1d6 determines that the rift travels into the past.

Sensor cannot determine that the rift is temporal unless the sensors are modified or the vessel is equipped with temporal sensors. (For more see Temporal Notes.)

GM's have the right to make additional roll penalties to the rift chart.

Subspace Rift Results

Roll	Result
1	Nothing happens
2	Nothing happens
3	Nothing happens
4	Nothing happens
5	Nothing happens
6	Subspace Tear
7	Nothing happens
8	Nothing happens
9	Subspace disturbance
10	Subspace disturbance
11	Subspace disturbance
12	Subspace disturbance
13	Nothing happens
14	Subspace disturbance
15	Nothing happens
16	Nothing happens
17	Nothing happens
18	Nothing happens
19	Nothing happens
20	Subspace Tear
21	Nothing happens
22	Nothing happens
23	Subspace disturbance
24	Subspace disturbance
25	Subspace disturbance
26	Temporal rift is created
27	Nothing happens
28	Nothing happens
29	Subspace disturbance
30	Subspace disturbance
31	Temporal rift is created
32	Subspace disturbance
33	Temporal rift is created
34	Subspace Tear
35	Subspace disturbance
36	Temporal rift is created
37	Subspace disturbance
38	Subspace disturbance
39	Subspace disturbance
40	Temporal rift is created
41	Temporal rift is created
42	Subspace disturbance
43	Temporal rift is created
44	Subspace Tear
45	Subspace disturbance
46	Temporal rift is created
47	Subspace disturbance
48	Subspace disturbance
49	Subspace disturbance
50+	Temporal rift is created

TNG Type II Photon torpedo Percentage

Level	Damage	Sensor difficulty
1%	2	0
2%	4	0
3%	6	1
4%	8	1
5%	10	1
6%	12	1
7%	14	1
8%	16	2
9%	18	2
10%	20	2
11%	22	2
12%	24	2
13%	26	3
14%	28	3
15%	30	3
16%	32	3
17%	34	3
18%	36	4
19%	44	4
20%	40	4
21%	42	4
22%	44	4
23%	46	5
24%	48	5
25%	50	5
26%	52	5
27%	54	5
28%	56	6
29%	58	6
30%	60	6
31%	62	6
32%	64	6
33%	66	7
34%	68	7
35%	70	7
36%	72	7
37%	74	7
38%	76	8

Level	Damage	Sensor difficulty
39%	78	8
40%	80	8
41%	82	8
42%	84	8
43%	86	9
44%	88	9
45%	90	9
46%	92	9
47%	94	9
48%	96	10
49%	98	10
50%	100	10
51%	102	10
52%	104	10
53%	106	11
54%	108	11
55%	110	11
56%	112	11
57%	114	11
58%	116	12
59%	118	12
60%	120	12
61%	122	12
62%	124	12
63%	126	13
64%	128	13
65%	130	13
66%	132	13
67%	134	13
68%	136	14
69%	138	14
70%	140	14
71%	142	14
72%	144	14
73%	146	15
74%	148	15
75%	150	15
76%	152	15
77%	154	15
78%	156	16
79%	158	16
80%	160	16
81%	162	16
82%	164	16
83%	166	17
84%	168	17
85%	170	17
86%	172	17
87%	174	17
88%	176	18
89%	178	18
90%	180	18
91%	182	18
92%	184	18
93%	186	19
94%	188	19
95%	190	19
96%	192	19
97%	194	19
98%	196	20
99%	198	20
100%	200	20

Quantum Torpedo Percentage levels

Level	Damage	Sensor difficulty
1%	4	0
2%	8	1
3%	12	1
4%	16	2
5%	20	2
6%	24	2
7%	28	3
8%	32	3
9%	36	4
10%	40	4
11%	44	4
12%	48	5
13%	52	5
14%	56	6
15%	60	6
16%	64	6
17%	68	7
18%	72	7
19%	76	8
20%	80	8
21%	84	8
22%	88	9
23%	92	9
24%	96	10
25%	100	10
26%	104	10
27%	108	11
28%	112	11
29%	116	12
30%	120	12
31%	124	12
32%	128	13
33%	132	13
34%	136	14
35%	140	14
36%	144	14
37%	148	15
38%	152	15

Level	Damage	Sensor difficulty
39%	156	16
40%	160	16
41%	164	16
42%	168	17
43%	172	17
44%	176	18
45%	180	18
46%	184	18
47%	188	19
48%	192	19
49%	196	20
50%	200	20
51%	204	20
52%	208	21
53%	212	21
54%	216	22
55%	220	22
56%	224	22
57%	228	23
58%	232	23
59%	236	24
60%	240	24
61%	244	24
62%	248	25
63%	252	25
64%	256	26
65%	260	26
66%	264	26
67%	268	27
68%	272	27
69%	276	28
70%	280	28
71%	284	28
72%	288	29
73%	292	29
74%	296	30
75%	300	30
76%	304	30
77%	308	31
78%	312	31
79%	316	32
80%	320	32
81%	324	32
82%	328	33
83%	332	33
84%	336	34
85%	340	34
86%	344	34
87%	348	35
88%	352	35
89%	356	36
90%	360	36
91%	364	36
92%	368	37
93%	372	37
94%	376	38
95%	380	38
96%	384	38
97%	388	39
98%	392	39
99%	396	40
100%	400	40

TOS Type I Photon Torpedo percentage levels

Level	Damage	Sensor difficulty
1%	1.6	0
2%	3.2	0
3%	4.8	0
4%	6.4	1
5%	8	1
6%	9.6	1
7%	11.2	1
8%	12.8	1
9%	14.4	1
10%	16	2
11%	17.6	2
12%	19.2	2
13%	20.8	2
14%	22.4	2
15%	24	2
16%	25.6	3
17%	27.2	3
18%	28.8	3
19%	30.4	3
20%	32	3
21%	33.6	3
22%	35.2	4
23%	36.8	4
24%	38.4	4
25%	40	4
26%	41.6	4
27%	43.2	4
28%	44.8	4
29%	46.4	5
30%	48	5
31%	49.6	5
32%	51.2	5
33%	52.8	5
34%	54.4	5
35%	56	6
36%	57.6	6
37%	59.2	6

38%	60.8	6
39%	62.4	6
40%	64	6
41%	65.6	7
42%	67.2	7
43%	68.8	7
44%	70.4	7
45%	72	7
46%	73.6	7
47%	75.2	8
48%	76.8	8
49%	78.4	8
50%	80	8
51%	81.6	8
52%	83.2	8
53%	84.8	8
54%	86.4	9
55%	88	9
56%	89.6	9
57%	91.2	9
58%	92.8	9
59%	94.4	9
60%	96	10
61%	97.6	10
62%	99.2	10
63%	100.8	10
64%	102.4	10
65%	104	10
66%	105.6	11
67%	107.2	11
68%	108.8	11
69%	110.4	11
70%	112	11
71%	113.6	11
72%	115.2	12
73%	116.8	12
74%	118.4	12
75%	120	12
76%	121.6	12
77%	123.2	12
78%	124.8	12
79%	126.4	13
80%	128	13
81%	129.6	13
82%	131.2	13
83%	132.8	13
84%	134.4	13
85%	136	14
86%	137.6	14
87%	139.2	14
88%	140.8	14
89%	142.4	14

90%	144	14
91%	145.6	15
92%	147.2	15
93%	148.8	15
94%	150.4	15
95%	152	15
96%	153.6	15
97%	155.2	16
98%	156.8	16
99%	158.4	16
100%	160	16

Enterprise Era Spatial Torpedoes

Level	Damage	Sensor difficulty
1%	1	0
2%	2	0
3%	2	0
4%	3	0
5%	4	0
6%	5	0
7%	6	1
8%	6	1
9%	7	1
10%	8	1
11%	9	1
12%	10	1
13%	10	1
14%	11	1
15%	12	1
16%	13	1
17%	14	1
18%	14	1
19%	15	2
20%	16	2
21%	17	2
22%	18	2
23%	18	2
24%	19	2
25%	20	2
26%	21	2
27%	22	2
28%	22	2
29%	23	2
30%	24	2
31%	25	2
32%	26	3
33%	26	3
34%	27	3
35%	28	3
36%	29	3
37%	30	3

38%	30	3
39%	31	3
40%	32	3
41%	33	3
42%	34	3
43%	34	3
44%	35	4
45%	36	4
46%	37	4
47%	38	4
48%	38	4
49%	39	4
50%	40	4
51%	41	4
52%	42	4
53%	42	4
54%	43	4
55%	44	4
56%	45	4
57%	46	5
58%	46	5
59%	47	5
60%	48	5
61%	49	5
62%	50	5
63%	50	5
64%	51	5
65%	52	5
66%	53	5
67%	54	5
68%	54	5
69%	55	6
70%	56	6
71%	57	6
72%	58	6
73%	58	6
74%	59	6
75%	60	6
76%	61	6
77%	62	6
78%	62	6
79%	63	6
80%	64	6
81%	65	6
82%	66	7
83%	66	7
84%	67	7
85%	68	7
86%	69	7
87%	70	7
88%	70	7
89%	71	7

90%	72	7
91%	73	7
92%	74	7
93%	74	7
94%	75	8
95%	76	8
96%	77	8
97%	78	8
98%	78	8
99%	79	8
100%	80	8

Enterprise Era Photonic Torpedoes

Percentage Level	Damage	Sensor difficulty
1%	1	0
2%	2	0
3%	4	0
4%	5	0
5%	6	1
6%	7	1
7%	8	1
8%	10	1
9%	11	1
10%	12	1
11%	13	1
12%	14	1
13%	16	2
14%	17	2
15%	18	2
16%	19	2
17%	20	2
18%	22	2
19%	23	2
20%	24	2
21%	25	3
22%	26	3
23%	28	3
24%	29	3
25%	30	3
26%	31	3
27%	32	3
28%	34	3
29%	35	3
30%	36	4
31%	37	4
32%	38	4
33%	40	4
34%	41	4
35%	42	4
36%	43	4

37%	44	4
38%	46	5
39%	47	5
40%	48	5
41%	49	5
42%	50	5
43%	52	5
44%	53	5
45%	54	5
46%	55	6
47%	56	6
48%	58	6
49%	59	6
50%	60	6
51%	61	6
52%	62	6
53%	64	6
54%	65	6
55%	66	7
56%	67	7
57%	68	7
58%	70	7
59%	71	7
60%	72	7
61%	73	7
62%	74	7
63%	76	8
64%	77	8
65%	78	8
66%	79	8
67%	80	8
68%	82	8
69%	83	8
70%	84	8
71%	85	9
72%	86	9
73%	88	9
74%	89	9
75%	90	9
76%	91	9
77%	92	9
78%	94	9
79%	95	9
80%	96	10
81%	97	10
82%	98	10
83%	100	10
84%	101	10
85%	102	10
86%	103	10
87%	104	10
88%	106	11

89%	107	11
90%	108	11
91%	109	11
92%	110	11
93%	112	11
94%	113	11
95%	114	11
96%	115	12
97%	116	12
98%	118	12
99%	119	12
100%	120	12

Spacedock New & **Alternative Tech** from the net

These notes from the web for Spacedock are useful and have significant purpose. I have used only a few in modifications but keep a copy of them with the pages of the Spacedock that I have printed in the use of constructing starships and space stations.

Variable Hull Geometry (First seen in Star Trek Chronology of Spaceflight)
SU Cost: 5 per system (see text)
Power Cost: Size x 12 per change

The variable hull geometry system is actually "alive." The hull is composed of nanites that shift and move to allow a "path of least resistance" for warp field and shield maintenance. The nanites all come from the same world (that one where Wesley's nanites were sent). The nanintes are incorporated into various systems and integrate themselves into the system. This takes several months of learning time for the nanites to fully integrate and test out the functions of their new home. Once integrated, the tiny robots maintain a "zero" position shape. All following designs are variations on that theme.

Normally, the system is set up for maximum warp field efficiency or shield efficiency, but the system can be set to increase sensor efficiency, as well as other systems.
Warp lowers energy cost by 50%
Shields gain a theshold of +50%
Sensors increase bonus by 5
Component Repair 5 SU's a turn (requires power cost per turn)
PTC can transfer 50 more points of power And anything else your Narrator can think of.

These numbers can be altered so that maximum change is never more than five (fifty percent) ie. warp lowers energy cost by 20 percent, but increase threshold by 30%.

Components that need to purchase this system to be considered a variable hull are:

Outer and Inner Hulls
Resistance
Ablative Armor
Nacelles
ODN
Life Support
Personell Transportation
Shield Emitters
MVAM
Saucer Separation
PTC

The biggest down side for this is, each time the ships hull is altered (unless to 0-position), the ship as a whole takes 100 points of damage that cannot be repaired by this system and the various fields and resistances cannot stop it.

Both of these are currently being playtested. The Variable Geometry Hull has come close numerous times to being written out of the series it was originally tied to. Fortunately, most of the players were mature enough not to rely on it except in extreme emergencies.

Notes for starship advancements and designs of starships systems.

Warp Engines
The chart says it all, for 10 SU you go up to the next engine type for a power range of +50 to minimum and maximum. I see a new engine type coming out once every 2-4 years.

Impulse Engines
There really is no increase in speed, but for each additional 5 SU you get 8 more power.

Shields
Generators are Size x (maximum rating/200). Subtract 190 from the maximum and that is the standard strength for that shield.
Distortion Amplifiers just add a .5 x Size cost and increasing threshold range by 50.
Recharge system adds a .5 x cost and reduces recharge time by 5 seconds.

Quantum Torpedoes
Just follow the theoretical torpedo advances, but each additional type after the two listed adds only 150 damage.

Bio Neural Computer
2 x Size per core and 7 power per core. Simple, to the point. These are basically just advances in the genetics of the gel packs.

EMH
Mark V: 23 SU 7 Power +1 Emapthy (reducing the -2 to -1)
Mark VI: 25 SU 8 Power + 1 to each skill
Mark VII: 30 SU 10 Power +1 Empathy, +1 to each skill
All bonuses are cumulative from the Mark IV

Specialized Hulls

Stealth Hull <Size x 1 SU>
The stealth hull is detectable at short ranges and with increases of +3 of difficulty per 100,000 kilometers range before vanishing completely from sensors. This stealth hull can be installed onto any starship that is in need to have stealth feats. Once the stealth hull is damage the hull can be detected at a new +1 difficulty per 500,000 kilometers while the rest of the hull remains the original.

Aquatic Hull <Size x 2 SU>
This is a hull reinforcement for a vessel that can fly in space and then diving into a liquid water environment allowing the ship to pass between the environments of waters-air-space without increasing the Structural Integrity fields. This is a restriction to vessels that are under size 5 as any ship larger would have an SU cost 4 x size and require 1 power x size.

High Pressure Atmospheric Capability
SU's Cost: 4-x size. With no cost an additional +4 to the Hull resistance is noted. The hull is reflective of the new Starfleet designs into an era of exploration and expansion.
Power: See notes

The addition to the atmospheric capability the reinforcement is requiring a higher than usual Structural Integrity Field. This creates starships with a stronger hull for a deep nebula and Jovian planet exploration vessel providing a research platform. The ship is designed as a planetary surface explorer.

High Pressure Atmospheric additions to the Shields
SU's Cost: the addition of size x 2
Power: +10 power per class

High pressure shields are powerful in atmospheric pressure and yet have no real resistance additional to the shields. HPA increases the shields by 100 to protection and 10 to thresholds.

Internal High Security Penal Colony Force Fields
SU Cost: 3 x size
Power Cost: 2 power per round per 3 strength per force field
Modern 23rd and 24th century Starfleet prisons use standard electro-static force fields to keep the prisoners in their cells and from escaping. Usually the force fields are changed to a level five for the average prisoner. There are multiple force fields that are arranged to prevent the escape of the prisoners. The force fields are controlled from a central prisoner control room attached to the operations. At the penal colony, no one makes a move without the operations knowing.

Internal Sensors

Constructed the same as lateral sensor and are designed to scan the inside of the prison. These sensors are more sensitive than the normal internal sensors that the ship uses. These internal sensors can only detect what is inside the prison and a short distance outside the outer walls.

Aero/Hydroponics decks

SU Cost: Size - 1
Power Cost: One person per (Crew + passengers)/20, rounded up on the Basic Life Support Table.
Aero/Hydroponics decks serve many purposes, from botany laboratory to source of fresh produce, to recreation for crew members looking for a green sanctuary in the midst of their metallic environment. Only ships of Size 3 and larger may have Aero/Hydroponics decks.
Example: An Aero/Hydroponics deck on an Enterprise-class heavy cruiser (a.k.a the Constitution re-fits) would cost 5 SU's [6 - 1] and cost 4 power per round [(500 + 66)/20].

Fusion Batteries

SU Cost: 1 SU per battery
Power Cost: None
      Many support craft that vessels rely on are too small to utilize the standard power production systems. These support craft must depend upon fusion batteries to provide power for their operation. Each fusion battery occupies 1 SU and generates 2 points of power per round.

      Only small craft, size two or smaller, may use fusion batteries. Fusion batteries are not practical for larger vessels.

Example: A size two travel pod uses 16 fusion batteries to provide power. This costs 16 SU's, and provides 32 points of power per round.

The Deep Space Nine Technical Manual notes that many standard probe designs have been updated from their previous levels (that is, Season 3 Star Trek: TNG). Here are my proposed game rules (Steve?)

UPDATED PROBE LISTING

Class I (Product Improved)
The Class I probe is designed to study stellar phenomenon. It is equiped with an 24.3 kiloquad isolinear processor. Some variants can be given low-observability coatings (Cloak 2).
Speed: .6c
Range: 320,000,000km
Long/Lateral/Navig.: -/+3/-
Stealthed Variant: Yes

Class IV (Product Improved)
The Class IV probe is designed to study unsual subspace and stellar phenomenon at high-impulse speeds. It is equipped with an 15.9 kiloquad isolinear processor.
Speed: .98c
Range: 723,000,000km
Long/Lateral/Navig.: -/+3/-
Stealthed Variant: No

Class V (Product Improved)
The Class V probe is intended as an stealthy long range reconnaissance system. It is designed for low observability on any known or projected Threat sensor system (Cloak 3). It is equipped with an 54.7 kiloquad isolinear processor.
Speed: .9c/Warp 2.6
Range: 842 billion km
Long/Lateral/Navig.: +3/+4/-
Stealthed Variant: Always

Class VIIIa
The Class VIIIa is a redesigned version of the old Class 8 probe using an quantum torpedo casing and more advanced sustainer engines. The actual sensor pallet is usualy optimized for one or two specific applications.
Speed: .993c/Warp 9+(max delta-v classified at Omega level)
Range: 100 ly
Long/Lateral/Navig.: +2/+3/-
Stealthed Variant: Yes

Class IXa
The new Class 9a also uses an more advanced quantum torpedo shell. It can only be fired from quantum torpedo tubes.
Speed: .993c/Warp 9+ (max delta-v classified at Omega level)
Range: 900 ly
Long/Lateral/Navig.: +1/+3/-
Stealthed Variant: Yes

Fusion Reactors

Class	SU	Power
Aux.	3	5
Beta	7	15
Alpha	13	30
1	21	50
2	36	90
3	51	130
4	66	170
5	81	210
6	111	290
7	141	370
8	171	450
9	201	530
10	231	610
11	276	730
12	321	850
13	366	970
14	411	1090
15	456	1210
16	516	1370
17	576	1530
18	636	1690
19	696	1850
20	756	2010
21	831	2210
22	906	2410
23	981	2610
24	1056	2810
25	1131	3010

[This message has been edited by Makklor (edited 01-22-2001).]

Borg Spacedock Notes

Here are a few of the Borg notes I generated years ago. I was cleaning out the hard drive… *I just got smacked up the back of the head.* … ah Jewel was cleaning house in the computer when she found the creation of Borg vessels notes. Well I was helping some what. What Jewel just said is not repeatable here.

Borg Regenerative Alcoves (generated out of Borg Cube by Steve Long / Ship Recognition Manual, Vol. 1-151)
SU's Cost: 1 SU per 100 Alcoves
Power Cost: 1 Power per 100 Alcoves
The Borg alcoves line the maze of hallways along the wall in an irregular pattern. Each alcove is adjusted to a specific Borg Drone. When a Borg drone is created the alcove is adjusted to the Drones Neural Biological implants. The Borg most spend a few hours a day regenerating before the bio-implants begin to degrade. At most a drone may spend at least 72 hours away from the alcove before the degradation begins causing a difficulty of an additional 1 difficulty to all tasks.

Borg Hull Resistance (Generated from Star Trek Voyager Source Book by Volker Maiwald)
The Borg Hull resistance is up to a max of 50 per both outer and inner hull combined. Independently the outer hull can handle a max of 26 and the inner of 24.

Optional Notes: The combination of raising Inner and outer hull Resistance up to 40 for the outer hull and holding at 10 for the inner hull. This gives the Borg vessel a tough outer shell and a softer inner hull.

Optional notes 2: An alternative rule for the Inner hull and outer hull is to automatically give the vessel an additional 10 points of resistance. Basically 12 points free and a maximum of 20 points per each hull.

Borg Transwarp Coils
Borg vessels have multiple transwarp coils located throughout the ship. The intergraded this diversity I have separated the coils into by taking the size of the vessel and dividing it in half and that is the number of coils for the vessel. When in combat to get the SU's for a specific Coil the number of coils is divided into the total of transwarp drives SU's.

For example: a Borg cube size 16 with 240 SU's for Transwarp drive has eight coils at 30 Su's per coil.

I threw in an additional resistance around the coil chamber of 10 as a shielding to the coils. Not that this is an armor but an energy field generated naturally by the Borg Transwarp coils.

Damaged Borg Transwarp coils
Per each transwarp coil damaged the length of time that a vessel can travel safely is cut in half starting at seven days. Generally a no vessel needs to travel more than seven days at Transwarp speeds.

Example: A Borg cube with eight coils, seven of which are damaged or destroyed it could travel at transwarp speed for one point three hours before the failure of the Transwarp drive. If only one coil damaged the cube could travel three and a half days before the failure causes a problem.

Borg Autodestruct
When a Borg Vessel explodes with its Autodestruct it will easily generate 5000 points of extra damage beyond the hull. This would destroy any vessel in 1 MU of range. Beyond 1 MU out to 2 MU debris could cause 500 points of damage can be inflicted to the ships shields, hull and so forth. A Chance roll of 7 to determine if any of the debris his the vessel. Beyond 2 MU's distance debris is of little danger.

Borg Shields
Borg shields act like normal shields on the first shot, then on the second hit the Borg must make a Difficulty check of 8 to determine if they have adjusted the shields to repel the attack. Third attack a Borg difficulty of 6, and the fourth a difficulty of 4.
Once the weapons frequencies have been determined the shield threshold is tripled. So v Borg vessel with a shield threshold of 450 would now have a threshold of 1350. A combination of energy and Photon Torpedo salvos can easily reach the threshold of 1350.
The Federation Starships who have made Frequencies adjustments to their weapon systems the Borg automatically have a penalty of an additional 2 difficulty to their rolls.

Two types of Borg Maturation Chambers
The Borg have accelerated growing chambers for the Borg and alien species. When used by the Borg, either to grow children to adulthood or as a cloning from a single cell into a full biological species.

Standard Borg Maturation Units

The Borg maturation chambers cost One SU per ten units installed on a Borg vessel with a power cost of one per ten. The growth on a standard maturation chamber accelerates the growth to sixteen days in a single hour.

For example, a captured eleven-year-old child is placed in the maturation chamber. Eight days later the boy is removed from the chamber at adult physical age of twenty.

* Personal Notes: I figured o 15, 20, 25, 30, 35 days. At thirty-five days, the maturation time would be just over ninety-three days. Then we looked at the accelerated growth into the matter of hours instead. We finally came up with 16 as the optimal time period.

Borg Cloning Maturation Units

The Borg Cloning units are similar to that of the Maturation chambers. The Borg Cloning technology require the standard Maturation units plus cost one additional SU to each cloning unit and one power for each unit. The cloning is seven time that of a maturation chamber, (the growth is accelerated to 112 days of growth).

For example, a single cell is used and reaches maturity in sixty-seven point sixty-three hours from conception figuring a at a life time of just under seventy-six hundred days from conception to twentieth date of birth of an adult.

* Personal Notes: The Borg have been presented with cloning technology in several episodes. We wanted the cloning to be far faster than that of a maturation unit. In the episode of Star Trek Voyager "one" the Borg is matured in the matter of hours, twenty-four or more hours with twenty-ninth century technology.

SPACE STATION NOTES

Fusion reactors: This system is based on the discussion about Space Station systems.

Fusion reactors have about 45 percent the efficiency of a M/AM power system. Their saving grace is the fact that they are more stable and less prone to large scale explosions if damaged.

Unit Size	(SU)	Power
Class 1/sA	5	10-19
Class 2/sAA	10	20-29
Class 3/sB	20	30-39
Class 4/sC	30	40-49
Class 5/sD	40	50-59
Class 6/sE	50	60-69
Class 7/sF	60	70-79
Class 8/sG	70	80-89
Class 9/sH	80	90-99
Class 10/A	100	200-224
Class 11/B	110	225-249
Class 12/C	120	250-274
Class 13/D	130	275-299
Class 14/E	140	300-324
Class 15/F	150	325-349
Class 16/G	160	350-374
Class 17/H	170	375-399
Class 18/I	180	400-424
Class 19/K	190	425-449
Class 20/L	200	450-474
Class 21/IA	250	570-599
Class 22/IB	260	600-629
Class 23/IC	270	630-659
Class 24/ID	280	660-699
Class 25/IE	290	700-729
Class 26/xA	350	740-779
Class 27/xB	360	780-819
Class 28/xC	370	820-869
Class 29/xD	380	870-909
Class 30/xE	390	910-939

Docking clamps:

This are standard docking clamps that hold crafts by enclosing parts of the hull structure with a combination clamp/tractor beam system. The clamp holds an extendable airlock assembly. The biggest crafts that can use this style of docking system are Size 6 crafts. This is due to area required and the strength of the holding beams. Furthermore the station needs functional navigational sensors. A typical example are the docking clamps on the ring section of DS-9. The ship is physically locked by the clamps with the tractor unit as an assistance for docking and stabilising. The structure is divided in a basic control module handling up to two approaching ships simultiously and the docking system with clamps, traktor beam and airlock. Ships above one

million tons cannot use this docking port due to the stress put on the supporting clamps.

Basic control module:
6 SU / 3 Power (Comm System Typ I / Gamma, Level I, Coordination I Auto Pilot)

Docking Port:
13 + Maximum Size * 0.5 SU / 16 Power (Airlock for five persons, Clamps, Delta Class Tractor beam restricted to level 5, Power / Data lines)

Docking arm:
This are larger constructs combining a heavy duty cargo loading/unloading system with a docking facility. They are officially known as Cooperative Docking Systems as they expect the ship to have a working station keeping system, assisting the docking unit. On the other hand ships up to nine million tons can be fixed by the twin tractor systems if neccessary but this puts a high drain on station power systems and the ships hull.

Basic control module:
24 SU / 9 Power (Control room, Nav Sensor Class 4/Beta, Comm System Typ I / Gamma, Level I, Coordination I Auto Pilot, Class II Control computer)

Docking Port:
25 + Maximum Size * 1 SU (+ 5 SU for fright airlock) / 61 Power (5 Person Airlock, Clamps, Twin Class Delta Tractor Beams, Power / Data Lines)

Warp Destabilizer
SU Cost: 25
Power: 15/ per use
Accuracy: 5/6/8/11
Range: 10/15.000/50.000/150.000

Pirates, bounty hunters and the Navies of some Interstellar powers use this weapon to prevent their intended Targets (be it a Blockade Runner, a fugitive from the law or a Trading ship) from running away at warp speed.

The weapon can only be used once a round and is only useful at half the Range of a phaser array. A successful hit upon a ship interferes with the proper functioning of the power transfer conduits connecting the warp engines, thus preventing the target from going to warp speeds (but not from providing power to the ship's systems). The effect lasts for 1 d 6 x 10 minutes.

A dramatic Success results in a much stronger effect: 1d 3 hours are added to the erstwhile effect. A dramatic failure can produce much more adverse effects than just a near miss. Instead of shutting down the power transfer, the weapon instead sends a power surge thru the conduits that lets the intended target go to

warp immediately. In addition to this uncontrolled warp burst there is the possibility that the subspace continuum is severely damaged, as per the warp field effect (Space dock page 34). The exact nature of this effect is up to the narrator, but at least the result of the dramatic failure should prevent the ship using the weapon from attaining warp speed for at least 1 d 3 hours.

The Warp Destabilizer can ordinarily only be used at impulse speed. It is not impossible to use the weapon to force a ship to fall out of warp. But this requires the attacking ship to match speeds exactly before attempting an attack. The accuracy shifts two numbers up. If the attack is successful, the ship falls immediately (and very violently) under warp. The inertial dampers compensate the brunt of the forces that come to bear. But still the target ship sustains 3 d 10 points of structural damage (only SIF and Resistance count against this). This rather violent tactic wreaks havoc with the subspace continuum (roll a d6 on a 1 or 2 the subspace continuum is severely damaged.

All the risks involving the use of this weapon led to its banishment in the light of the warp field effect. The possession of a warp Destabilizer alone is considered a capital crime in the Federation, the Klingon Empire and the Romulan Star Empire. The Cardassians have so far failed to sign such a treaty, an addition to the treaty that bans the use of Isolytic weapons.

Close Range Tractor Beam
Power: see below
SU Cost: Class Alpha: 5
Class Beta: 7
Class Gamma: 11
Class Delta: 14

Used for boarding actions the close range tractor beam (CRTB) has all the features as a standard tractor beam, except it works at close range with a higher efficiency and works at reduced efficiency at longer ranges. At ranges up to 1 Km the power cost is halved, from 1.1 – 10 Km the power cost is normal, at ranges beyond that the power cost doubles.

SU cost is slightly higher than with the standard models.

There have been several temporal starships throughout the Star trek series. In the latest series of Star Trek RPG we are playing the needs a starship. Using the Star Trek the Expanded Universe "All our Yesterdays" the Time Travel Sourcebook to back engineer the starships. These are not official Spacedock or using the converting back to the Basic system in a reverse page 175 of Spacedock. Instead of dividing down multiplying up works to give the rough outline of the vessel while filling in the gaps with standard Spacedock notes. The vessels are close to being what they need to be for the adventure before adjustments.

Hull Resistance
The nature of a temporal starship precludes the need of a heavy hull resistance time ships. Some of the temporal ships from Star Trek: The Expanded Universe "All our Yesterdays" the Time Travel Sourcebook have rather low hull resistance making them fragile. Where other have heavier hull resistance than that of conventional 24th century starships.

Temporal Transporters
Temporal transporters are generated the same the one's found in the Spacedock. Generally there are at least one of these transporters per ship.

Federation Temporal Fleet has at least one use to send temporal operatives through to different time periods to deal with temporal incidents.

Chronometric Sensors
Most all ships that can travel through time need to have sensors to detect any object in the time path that they would be traveling through. Few ships have the powerful sensors to see the movement of time and its out comes. Most twenty-fourth century starships would have sensors that can only detect an active temporal distortion or the residual elements of the distortion with the standard sensors, but with Chronometric Sensors the more information than that the normal sensors would. The Chronometric Sensors can detect even the precursors to the temporal distortions. Range of the Chronometric sensors cost one SU per light year with the first light year being free, with a range of no more than that of the Long range sensor systems.

To power the Chronometric Sensors need twice the power than the standard sensors. The increase of sensor power to increase the range and power of the detection.

Chronometric Sensors have a difficulty for jamming by simple devices such as food replicators as they have to be shielded with a temporal dampening field.

Strength Package	SU	Strength
Class 1	2	1
Class 2	4	2
Class 3	6	3
Class 4	8	4
Class 5	10	5
Class 6	12	6
Class 7	14	7
Class 8	16	8
Class 9	18	9
Class 10	20	10
Class 11	*24*	*11*
Class 12	*28*	*12*
Class 13	*32*	*13*
Class 14	*36*	*14*
Class 15	*40*	*15*

Gain Package	SU	Test Result Bonus
Standard	0	+ 0
Class Alpha	3	+1
Class Beta	6	+2
Class Gamma	12	+3
Class Delta	24	+4
Class Epsilon	48	+5

Subatomic Disruptors or Advanced Phaser Arrays
Chronotron Disruptor/Subatomic Disruptor is a powerful weapon capable disintegrating all atomic bonds between matters. The weapon costs 2 SU's per 10 damage. Power works out the same as the Phaser and disruptors.

Temporal Warp Core
A temporal warp core costs 10 x size in SU's in addition to the normal the SU's cost for the Warp Core. (A vessel may have a conventional warp core and may have need for a second warp core. A second warp core could be a non-temporal warp core to power the temporal weapons and defenses systems.

This Temporal weapon and warp core prevent conventional directed energy weapons and Torpedoes from damaging it. Only weapon systems that share a temporal weapon signature or have been modified to detonate in a certain temporal frequency can cause damage to the ship.

A destruction of a Temporal Warp Core would cause a temporal shock wave though not only normal space but through time as well. The shock wave would rewrite any history that the vessel that it encountered. Yet any vessel protected by a temporal device would be able to detect the shockwave and the changes that the wave encounters traveling through space. the wave travels at near warp speeds, but once the change passes by a point the object in now in that changed time line.

Temporal Warp Drive
Su's Cost: +10 to Standard nacelle selection
Power 1 power/.1 warp factor
A temporal warp drive takes the ship outside time and space allowing the ship to travel suspended in time and space. Normal dangers would be only a minor risk to the class of starship.

Temporal Transwarp Drive
Su's Cost: 16 x size
Power Cost: (16 x size) power per round
Used by some alien species to travel at high warp speeds and through time forward and back ward through time. While traveling is handled much like that of standard Transwarp drive.

Time Travel with Temporal Warp Drive
Time travel methods listed above is handled much the same as that as each light year is equal to that of a year. So a vessel equipped with a temporal warp nacelle Type 6D would have a max time travel of 9.6 years per round. This would take 23 hours to travel twenty years in time, where as a Temporal Transwarp Drive would take only 69 minutes to travel the same time period.

Temporal Embedded Nacelles
Most of the standard vessels have Embedded nacelles constructed the same as that for a conventional starship.

Temporal Rift Generator (or Tachyon field Generator (Star Trek Voyager Endgame))
SU Cost: 5 x size for the generator
Power Cost: 40 power (optional: 20 power +1 power per 10 years of rift travel)
Designed much like that of a Navigational Deflector but works much like that of an artificial tunnel through space only a few thousand kilometers long that bridges across a few hundred years. A ship travels at one quarters impulse can cross the distance to the other side and allow the rift to collapse and seal itself.
Where other versions would need a deflector pulse or Modulated Photon Torpedo to collapse the rift. To modulate the Photon Torpedo or arrange the deflector pulse takes a difficulty check of 10. A standard Photon Torpedo detonated in the rift or on the edge of the rift

could cause a premature collapse of one end. A vessel traveling through a rift when the rift is collapsed the vessel is virtually crushed by the rift. A jump to warp with a high difficulty risk of catching the edge of the rift.

Example: *The Starship Indiana chasseing a Temporal Starship fires a photon torpedo missing the temporal ship and striking the edge of the rift causing a slowed collapse of the rift. The Indiana calculates the risk of crashing into the rifts edges as they begin to touch. The Indiana's Captain's has two orders the vessel to maximum impulse to avoid the edge of the rift and catch the time ship or all reverse. Either requires a difficulty check of 10.*

The risk to the ship either way is great. The Indiana could catch the edge of the rift as it collapses or not slowing fast enough and slamming into the edge of the collapsed rift destroying the ship. Either way the ship is like an egg dropped on the floor.

Notes: The standard Navigational Deflector can be modified to work as a Temporal rift Generator and open a rift once. The Deflector will burn out and needs to be repaired over 72 hours with a difficulty check of 9. The standard Navigational Deflector takes twice as long to open a rift and create a temporal rift large enough to enter.

Temporal Shields
The temporal shields cost an additional 1 x size much like the regular shields are made up. The shield for conventional weapons is next to invulnerable to the weapon unless the weapons are modified with a difficulty of 8 to the modification. Temporal Shields cost 2 power per 10 protection. The shields act as normal shields when in combat against temporal weapons.

Crews
Temporal ships have reduced crews equal to that of a 24th century Federation Science Ship. This is do to that temporal starships are highly automated vessels. This way they require few crew to maintain the ship.

Original notes
Temporal Warp Core & Temporal Incursion cannon
The ships primary weapon is a weapon powered by a temporal warp core in which keeps the ship out of phase with normal space-time. This temporal warp core will keep the crew from ageing.
A temporal warp core costs 20 extra SU's beyond what a normal warp core costs because of its nature.
This Temporal weapon and warp core prevent conventional directed energy weapons and Torpedoes from damaging it. Only weapon systems that share a temporal weapon signature or have been modified to

detonate in a certain temporal frequency can cause damage to the ship.

Chroniton torpedo

The Chroniton torpedo ignores conventional shielding penetrating to the hull of the ship. The detonation damaging the vessel severely if the damage is nears a vital area. A typical Chroniton torpedo does 300 Damage on impact with a ship's hull. The Chroniton Torpedoes have a range of 15/400,000/2,000,000/5,000,000 kilometers with a targeting system of Class Gamma.

Temporal Cloaking Device

The temporal cloaking device takes the ship out of time and space as well as making the ship invisible to sensors. The Temporal Cloaking Device cost twice the SU's and power of a standard cloaking device.

Here is some add-on's for a starship by Omega1967

Prisoner Cells
SU's cost: 30 cells per Su per prisoner
Power cost: 1 to 3 per SU cost

The cells on prisoner ships have many safety and security measures to keep all but the most ingenious prisoner from escaping. Starfleet has only a few of these ships. Most cells either have force field and transporter suppressors to prevent the prisoners from being beamed off the ship and escaping. Note older cells will not need power as they will use only locking cell doors and have no knowledge of transporters.

Other Systems
Holodeck Enhancement
Holodeck Stability Matrix [+1 Power per holodeck on ship] <One additional SU>

Gives the Holodeck imaging Matrix a stronger more stable Holo-matrix for longer running simulations. This enhancement allows the more elaborate holographic figures.

Sensor Enhancements
These are additional packages to add to the sensor systems. These can be placed on both starships and space stations and automated probes ships.

Astronomical Observation Package (+1 bonus) [+1 power] <Two additional SU>
This gives the sensors a telescopic imaging system much like that of a telescope for such as stellar objectives. This is an enhancement for the Long-range Sensors only. Cannot be added to that for combat be

used in detecting a starship.

Planetary surface analysis Package (+1 bonus) [+1 power] <Two additional SU>
Gives the ship a better ability to scan the surface of a planet surface and sub-surface geology. This gives the average sensors the ability to detect the specific mineral in the surface crust within millimeters.

Graviton detector Package (+1 bonus) [+1 power] <One additional SU>
Lateral and Navigational Sensors can detect weak and stronger gravity stresses than normal sensors. This gravitational detector can pick up the minute distortion in the gravimetric field of a planet and solar system depending on whether lateral or Long-range sensor.

Particle migration detector Package (+1 bonus) [+1 power] <One additional SU>
A lateral sensor enhancement detects a single or group of particles movement through a nebula while within range. In normal space the particles can be used as a methods of tracking a starship.

Tunneling Neutrino Sensor Package (+1 bonus) [+2 power] <Three additional SU>
The tunneling neutrino sensors will probe deep into subspace and spatial anomalies. This is a directional sensor that will have an ability to detect a multiple of natural and artificial energy detection.

Exotic Matter Detector Package (+1 bonus) [+1 power] <One additional SU>
This allows better detection of exotic matter and the hard to detect Dark Matter materials. This will allow the ship to avoid or discover new exotic materials. Many forms of exotic matter could be hazardous to human.

Enhanced EM Radiation detector Package (+1 Bonus) [+1 power] <One additional SU>
This will allow the sensors to detect lower levels of electro-magnetic radiation than standard. The many varations of the EM radiation that can effect the lifeformes known to the technology known by man.

Gaseous anomaly detection Package (+1 Bonus) [+1 power] <One additional SU>
This allows the terraforming Analyzing of planets that can be studied. These enhancements allow the search for microscopic life form. Much of the anomalies that can be detected will show the path of future evolution.

Neutrino detection Package (+1 Bonus) [+1 power] <One additional SU>
This can track individual Neutrino particles that are fast and traveling in odd directions. Many stellar

anomalies emits neutrinos out of the event. Nuetrino's are a hard partials to track.

Sensor Platform
SU's Cost: 10 time the size
Power Cost: 1 times the size

Sensor platforms provide an additional sensor bonus of one or to any scans. Bonus can only be applied to the sensor scans when the sensor platform is powered up.

Sensor maintenance needs to be done every combination of all basic sensors SU's x 10 hours to all sensor which mostly is basic diagnostics and sensor recalibrations of the systems. The sensor pods will also have a sensor blind spot and break in the shield during the few seconds of adjustment the high powered sensor pods cause the hiccup.

EXAMPLE:
Intrepid-class Light Explorer The increase of 68 SU's and 9 power

Sensor Systems
LONG-RANGE SENSORS [6 Power/round] <62>
Range package: Type 7 (Accuracy 2/3/5/8)
High Resolution: 1/.6-1.0/1.1-41/4.6-6.0
Low Resolution: 1/1.1-61/6.6-131/13.6-18+
Strength Package: Class 8 (8 strength)
Gain Package: Class Beta (+2)
Astronomical Observation Package (+1)
Enhanced EM Radiation detector Package (+1)
Coverage: Detect an additional 3,000 substances

LATERAL SENSORS [7 Power/round] <36>
Strength Package: Class 8 (8 strength)
Gain Package: Class Beta (+2)
Planetary Surface Analysis package (+1)
Gaseous anomaly detection Package (+1)
Enhanced EM Radiation detector Package (+1)
Coverage: Detect an additional 3,000 substances

NAVIGATIONAL SENSORS: [5 power/round] <20>
Strength Package: Class 8 (8 strength)
Gain Package: Class Beta (+2)

Sensor Platform (+1) [6 power/round] <60>
Probes: 60 <6>
Sensor Skill: 5

This is the Babylon 5 versus Star Trek crossover generator device. This is the device that can be installed on almost any ship that can produce the power to operate the device. The Mirror Federation was able to obtain the device from the junk seller who had salvaged the vessel from the wreckage of an unknown alien species that traveled from one dimension to another exploring until encountered a hostile species that captured it.

Mirror Federation has perfected the generator as well as the mirror Babylon 5 has done opening the rifts between the universes and began the war against each other. These two military forces have taken large fleets into the neighboring dimensions where they have both lost many ships in the large scale battles.

Dimensional Rift Generator
SU Cost: 150 for the generators +300 for the stabilization component for stabilizing the rift portion of the generator.
Power Cost: 150 for a standard generator + 150 power per round.

The technology for the Dimensional Rift Generator came from another universe that the technology was created by a technologically advanced species that traveled between dimensions. The alternative universe Federation was able to obtain the technical details to construct the device. It requires Industrial Fabrication units time to generate one SU (such as an Industrial Fabrication Unit Mark IX seven and half to twelve and half hours to generate the basic device and a standard replicator would take twelve and half minutes to generate the device.)

Designed much like that of a Navigational Deflector but creates an artificial tunnel through space only a single MU in length, that bridge across a dimensional barrier between universes. A ship travels at .1c impulse can cross the distance to the other side and allow the rift to collapse and reseal itself. It takes two minutes of steady projection of the rift generators beam to open the beach large enough to allow several or more ship to sail through before it reveals itself. The generator requires the nearness of a planet and star to allow the dimensional breach to open.

The fabric of the space is equal to 1500 and can be beached with a beam doing 20 per round to cause a breach. The breach will immediately begin to reseal at a rate of 20 per round and seals in 75 rounds (over 6.25 minutes). The breach will be five thousand kilometers in diameter. Once the breach has been sealed the breach cannot be opened again for several days with in the star systems.

Once the barrier is breached and the barrier begins to normally reseal the barrier. The additional stabalazrion portion of the generators creates a stable tunnel that is difficult to collapse.

The resealing the barrier can be accelerated by using the ships deflector dish and requires double the power to seal the breach twice as fast as long as the deflector is

projecting against the breach. For starships equipped with a trio of Modulated Photon Torpedoes can cause the breach to collapse even with the stabilization field times ten the usual collapse. It requires thirty six rounds to modulate a Type II but requires the crew to open the casing for a type I and one hour to make the adjustments to the torpedoes. Energy weapons used against the barrier increases the collapse by 5 per round per hit.

For the Temporal use the Dimensional Generator requires a Temporal Rift Generator as well as the Dimensional Generator.

Using the Main Deflector as a Weapon

It has been seen in both Generations and the Best of Both Worlds using the main deflectors as a weapon or modulating it to disrupt the local subspace field for one reason or another.

Here are the rules that I like for the use of the Deflector as a weapon.

As a weapon to use against the Borg I have seen that there was an increase in the deflector's power by using the EPS construction for adding power. This build into the SU's of the navigational deflector and increases the power used.

As for the damage the deflector can cause 20 x power of both the navigational deflector and long range sensors or disruption to whatever the target is with a difficulty roll of 15. The modulation of frequencies will cause more damage to the vessel that is attacked by rolling a ten side dice using it as a percentage and adding .5 giving a variance of 50% to 150% damage.

Here is an example: the USS Enterprise as of the Best of Both Worlds
Navigational Deflector [15 Power/round] <32 + EPS power transfer upgrades to the system 1 = 33>
Range: 10/20,000/50,000/150,000
Accuracy: 5/6/8/11
Location: Forward Ventral

Sensor Systems
Long-range Sensors [15 Power/round] <54+ EPS power transfer upgrades to the system 1 = 55>
Range Package: Type 7 (Accuracy 3/4/7/10)
High Resolution: 5 Light-year (.5/.6-1.0/1.1-3.8/3.9-5.0)
Low Resolution: 17 light-years (1/1.1-6.0/6.1-13.0/13.1-17)
Strength Package: Class 9 (Strength 9)
Gain Package: Class Beta (+2)

Coverage: Standard

The damage that the Deflector can dish out can be as high as 900 mainly directed against the Borg power systems.

Shipwide Integral Holographic Coverage by Ensign Arrgh
SU cost: to decide, I thought initially 1 SU/size, give me your thoughts
Power cost: 2 x size
      In effect, this allows your ship's EMH to go pretty much where it wishes to, unless you cut off the Hologrid in your room, which I would do if I had a nosy hologram with complete freedom of movement on my ship. It also allows to create bigger simulations, install shipwide holographic personnel, although Starfleet tends to frown on this practice, (they prefer to send EMH I to do this
      Not much in term of game effects, except you can always try to do the Picard trick in ST: FC if you're caught weaponless in while being boarded, or add it to external hologrid coverage to simulate the internal rooms, like USS Incursion.

Aerodynamic Hull Size x 1
Ship must first have Atmospheric Capability.
      I though this one up when I was trying to stat out the Nova Class' Waverider shuttle/yacht. What little you can make out of it shows it is much more streamlined than any shuttle yet seen. As most atmospheric capable ships would drop like rocks if they lost power, this seemed like a good idea. With this, you would be able to glide into a safe landing ("Yeah, right!" Col. Steve Austin).

Temporal Incursion Cannon By waveman
this is my take on the Temporal Incursion Cannon

A massive, powerful cannon was developed by the Krenim, but used by other extremely advanced races (Federation after 31st century)

SU 200
range 10/30000/150000/400000km
Arc 360 degree's
Accuracy 3/4/5/6
Damage spec
Pwr/shot 400

* this cannon creates temporal incursions which erase the target from time. A temporal shock wave, from it's use, spreads through out the galaxy causing whatever corresponding changes resulting from the erasing of the target. Temporal shields offer protection from this

weapon and anything inside a active temporal shield are isolated from the changes.

A vessel must have a temporal core(warp or transwarp core modified), Quantum computer cores, temporal shields and temporal sensors fitted if they want to have a Temporal Incursion Cannon.

Luxury Vessels

Here is some notes, I have been generating for a new series of vessels for an adventure.

Civilian and Luxury starships - The civilian fleet of luxury ships and commercial vehicles are prolific throughout the Federation and beyond. Many members of the Federation have their civilian fleets and military fleets organized differently but many ex-military officers and crew join the civilian fleet as crewmen of the civilian fleet. All known races have civilian ships even the Klingons.

 The Romulan Empire civilian fleet is highly regulated with the idea of keeping the population in check. The Romulan Tal Shiar agents are kept aboard these ships.

Types - Civilian Fleets are arranged in the groups of the following and many more variations of the fleets.

Civilian Private Yachts—size two or three, capable carrying small groups of passengers and cargo. Many wealthy families and such have this ships for private use. The TOS era's Aurora-class civilian yacht is a version of this ship.

Cargo Carriers—this is a small size 2 to 4 cargo ships usually with a civilian owner and has a small crew and very few passengers on board the ship.

Commercial Transports—much like Civilian Yachts these carry passengers and cargo for a price. A private citizen and hires out his crew to whoever has money to do so usually own these.

Large capacity Cargo ships—these are size four through six and even larger by aliens in the Gamma and Delta quadrant. Many species have large cargo carriers such as the Desara-Class Merchant Vessel, the Klingon Huc'ta-class Merchant vessel and the similar looking Cardassian Salgar-class Military transport, as well as the Malgar-class Modular Transport.

Luxury Liners—these pleasure vessels are equipped with the latest in luxury. These ships are size eight and up to the size ten capable of carrying thousands of passengers and crew.

Entertainment vessels—these civilian fleets carry a ship capable of staging sporting events in the large lounges and theatrical rooms. Holodecks and Holosuites mounted in the ship are used as rent a pleasure room. *There can even be ships that carry large arena's specially designed for fights whether for martial weapons or hand to hand.*

Brothel ships—size two or three size ships or even larger where a companion can be bought for the night. A Ferengi businessman has several of these vessels providing the workers, such as ore minors with a distraction for a fee. Naturally, the Ferengi have extensive trading merchandise onboard all their ships.

Transport ships—these are short range transport usually within the systems carrying a few hundred passengers to and from civilian stations and planetary colonies. (These are like airliners of the star trek eras carrying a small amount of cargo and passengers.)

Civilian authority—each colony world and world has its own orbital police force. These vessels are size four or five light warships. Several of these vessels are available at any given time in the orbit of any planet or star systems. These often are the older retired vessels such as an old Saladin-class frigate/destroyers.

Civilian Science Vessels—many civilian companies keep a fleet of civilian science vessels even though the Federation will likely step up to aid in any and all legitimate scientific research. Some smaller corporations prefer to do illegal and legal research without outsiders watching them.

Recreational vessel—used as a sail vessel with large solar canvases. The Bajoran Sail ship is an example. There are several species that use the sail ships as sporting race vehicle pushed by the solar winds. Another version of recreational vessels is a small shuttlecraft with high powered impulse engines capable of fast ultra sensitive maneuverability used as a high speed race vehicle. One or two crewmember vessels no armaments or extra cargo or equipment used for long duration travel. Fueled for short duration of hours not days or week.

Small Medium Range Trade Ship—mostly all are size two with the capacity of two or three crew and passengers with a small amount of cargo. The Ferengi have a small shuttle craft that is this class. These ships are designed to carry specific items much like a flying store where anything can be had for a price much like a

mercantile facility on a planet or space station.

Civilian Outer Hull and Primary Hull Skeletal Structure
SU's: Outer and Inner hulls cost 3 x size
Power: None

   The Civilian starships such as a cruise liner dose not need Combat rated hulls as they do not generally go to battle with warships or are exposed to the rigorous dangers of exploration. Yet as a civilian ship exceeding warp speed the ship begins to take hull damage after an hour of exceeding rated PIS for maximum warp speed of one SU of damage.

Resistance
SU's: same as standard Spacedock.

   Most civilian ships do not have resistance higher than four to six. Yet the average is four per hull

Crew and passengers - Generally the civilian ships have smaller crews and larger passengers. The passenger out number the crew four to one on smaller vessels size's three and four, five to one on vessels size's five, seven and eight. On ships larger than size 9 the average is six to one or greater. Luxury liners are capable of handling up to twenty time the passengers and crew.

Airline seating
SU's Cost: 1 SU's per 70 persons
Power: Zero power

   Passenger shuttles or short distance transports generally used on size two and three ships. This is airline seating for passengers.

Luxury Recreations Facilities
Su's Cost: +2 to standard Recreation Facilities cost
Power cost: + 3 Power

   Luxury recreation facility includes additional Holosuites, several bar lounges, theaters, museums and even a casino on board the vessel. In the TOS Era starships Holosuites would be Luxury spas.

Botanical Gardens (Luxury)
Su's Cost: like Cargo holds
Power Cost: Equal to number of SU's size of garden

   The gardens are installed on size four starships or larger and cannot exceed over one third of the ships full volume. Each garden is of one SU's equal to that of a cargo bay size of 33,000 cubic meters (length of 66 meters x width of 50 meters x height of 10 meters). The garden's ceiling and wall will have windows to allow the view of the stars and allow natural light into the garden.

   These gardens cost power for both artificial lighting and environmental life support. In addition to being a recreation for the ships passenger it has trees and gardens for fresh food production. Each garden size of SU has at least four crew assigned to it beyond the standard crew.

Mercantile Facility
   Use the mercantile Facility chart form the Cardassian sourcebook page 121. Works much the same way as the Space station mercantile facility. Only the largest and most luxurious of the civilian Luxury Liner has a rating of ten for the mercantile facility and will not be selling weapons.

Warp Propulsion and Power systems
   Civilian vessels have a lower warp speed than that of starships and have less time for the maximum warp speeds. Luxury vessels are build for luxury and not for speed.

   These vessels have plenty of power to power the luxury systems.

Tactical Systems
   Defensive weapons are low rated phaser banks for the next generation. Usually Luxury vessels have no torpedo launchers or missile weapons of any kind.

Defensive Systems
   Most Civilian vessels have shields in the lower range and are generally not raised except for that of a testing or in the case of a ion or plasma storm.

   Autodestruct systems are not installed in civilian starships as civilians do not blow themselves up as a matter of principle.

Hanger bays
   Luxury liners have large shuttle bays capable of handling size three and smaller ships and shuttles. Most ships carry cargo of some sort from one place or another and large shuttle bays help in loading cargo.

Specialized Tractor Beams
Gas collector Tractor beams
SU's: Cost +3
Power: +2

   Gas collector Tractor beams are mostly looking like large trawling nets attached to the sides of the vessel. The emitters are adjusted to bring in any kind of materials by adjusting the residence to attract one atom and not another. The Emitters attract .25 Cubic meter of compressed gas for storage every 1 Minute. A tank of 33,000 cubic meters would take over 91 days to fill with a single emitter. Multiple Emitters will increase the collection operation.

   The simple repair time is three days for a small damage to a single Tractor Beam Emitter. An overhaul to the emitters take two weeks per emitter.

Delta-class .25 cubic meters per minute per emitter
Gamma-class .125 cubic meters per minute per emitter
Beta-class .0625 cubic meters per minute per emitter
Alpha-class .03125 cubic meters per minute per emitter

A single Class Alpha Emitter would take over two years to fill a cargo hold of 33,000 cubic meters. Four Class Alpha Emitters would take six months. Where as a single Delta-class could easily fill the same tank in three months, and four emitters could in just under 23 days.

So the type of emitter class and size would matter on the size of the ship the tank it needs to fill. The larger the ship, the larger tank, the larger the emitter.

Note: In Space away from a Nebula or Gas Giant where standard matter is a few particles per square centimeter, the emitters are nearly useless and would take centuries to collect enough gasses to sell.

Once the tractor beam emitters have been converted over to or are already gas collection emitters they cannot be used for toeing another ship. Conversion takes a minim of three days to convert over.

If held in a tractor beam the collection emitters become useless.

When reversed these collection emitters can blow (or dump) its entire load of gas creating a small nebula if stationary blinding another ship, at speed a long trail of gas.

Gaseous Deuterium can be ignited by energy weapons causing sever damage.

If you don't know how much gas has been collected use two ten sided dice to arrange a percentage of gas collected. Using the percentage to determine the amount of gas the explosion can be determined by knowing one cubic meter of deuterium gas causes 1.25 SU's worth of damage to the ship.

These tractor beams are installed on craft size four or smaller as it takes time to collect the gasses.
Example: a ship with 33,000 cubic meters of gas cargo would causes 41,250 damage with in 1 MU distance of the explosion, dropping by half each MU distance out. The ship would have been vaporized instantaneously.

Seen in an episode of Star Trek Voyager and an episode of the animated series a space creature that consumes starships for food or consumes planets was the bases for this creature. I wanted to present the crew and their ship a monster that they had never encountered and would have to work to understand.

A SUBSPACE LIFEFORM

Subspace Lifeforms

A small subspace rupture into normal space is all that can be seen in normal space. From all scans the rupture appears no different than thousands of other ruptures located throughout the universe. It is not until the creature's use of gravimetric beams begin pulling the ship in to the open mouth that the crew of a surprised starship discovers that it is caught by a subspace creature intent on eating their ship and them to. Thought the subspace rupture aka the creatures mouth is the size of a starship used in pulling in asteroids and other space rubble. The creature much like other living things consume the ships and other space materials as food and grow much as you or I would do with a cheese burger and fries for our own dinner.

The Creatures Mouth

The mouth of the subspace life form may be as large as a few kilometers wide or just enough to attach to the hull of a small vessel and tear a hole in it and consume the vessel by tearing it into pieces.

The larger the creature, size four or larger can pull a ship into the rupture using a force similar to that of Starship Tractor Beam. The creatures pull on a starship like a rated Tractor Beam on a starship with ranges similar to that. (Size 3 and 4 have a pull equal to that of a class Alpha Tractor beam, a size 5 would have the pull of a class Beta, a size 6 creature would have a class Gamma tractor beam and a size 7 through 9 size creatures would have a class Delta tractor beam, while anything larger than a size 10 would have a gravimetric pull more powerful than the average starship to pull free from.   As with a standard tractor beam a phaser beam or photon torpedo strike and detonation would break all but the larger creatures hold on the ships.

The inside of the creature

Once pulled inside the subspace life form the ship or object is digested by biological enzymes. If the object is a starship and is shielded the creature assaults the shields with Electro Plasma Discharges that look like lightning but are closer to that of a phaser or disruptor weapon. Each creature is capable of delivering different level charges. Roll 1d6x75 (with a total of 450 damage) to discern the damage that the creature can deliver each round. This will wear the shields protecting most starships down.

The digestive enzymes that will work on dissolving the ship 3d6 will disinergrate so many of the ships SU's per round after resistance. The enzyme dissolves the ship to provide fuel for the creature to live and grow.

A fully powerful creature can knock the shields of a Constitution-class starship out in a couple of rounds and digest the ship in 125 rounds (21 minutes), but while a galaxy class would last in the same creature for 36 rounds for the shield and 303 rounds (50 minutes) for the ship to be digested. A starship could be disinergrated in less time than that.

Sensors

The typical sensors can detect the creature but not until modifications are made. The sensors most likely only detect the mouth opening as a run of the mill subspace rupture. Only until modifications are made to the sensors will the reality of what has been created be seen. The creature is huge.

The creature can sense a starship several light-years away even if it is cloaked as the ships warp core and warp nacelles disturbed the subspace environment. Much of the subspace environment is still a mystery to those living in normal space.

The Creatures size

The creature is huge and is rated on the same scale as a starship by rating the size of the mouth opening.

Starfleet research has determined that the creature grows 1 SU in size for every 100 SU's of material digested over 10 hours after consuming. So a creature consuming a Constitution-class starship would increase its size by 12 SU's and a Galaxy class there would be only 20 SU's of growth. For a creature to grow to the size and have a mouth the size of a Galaxy class it would have to consume 21,121,050 SU's taking years or decades. The creature's physical body grows at 1 SU per every 14 days unless interrupted by travel.

The internal composition is such that it has a resistance that is equal to 60 times the creature's size. So a creature size 8 would have a resistance of 480 while a creature of size 4 would have a resistance of 240 and a creature size 16 would have a resistance of 960 against all weapons.

These creatures have nearly all the same body parts that a human or other biological entity has except for arms, legs or lungs deriving much of what it needs from the materials it consumes.

The detonation of a starship's warp engine or warp core would do only a small percentage of damage to the creature. The use of special weapons and devices to destroy the creature are necessary.

Movement

The creature have been known to move through subspace to find a place where it can reposition to feed on new materials. The creature can move at phenomenal speeds as majority of it lives in subspace. The creature can move into the neighboring star system in only a few hours although doing so burns up half of its stored energies and prevents the growth of the creature.

The Lure

Some of these Subspace life forms have become a little more intelligent and self aware. The more intelligent these creatures become the more dangerous the creature is.

There have been reports that there are some creatures that have become smart enough to mimic distress calls and lure a starship close enough to be pulled in.

Some creatures may even have the ability to use their PSI factors to manipulate a crew into bringing the ship in closer to be captured.

The Hunger

The creature can survive off the digested starship and crew for weeks or months before needing to feed again.

These creatures consume their size is SU's per day. So a size eight creature that has eaten a constitution class starship will use 12 SU's to grow its size and the rest as food for 155 days before it would really need to feed again.

The creature could possibly transmit the feeling of hunger to another creature that has physic. This can cause another physic creature can be affected with a symptom of intense hunger.

Procreation

No living humanoid has seen the procreation of one of these creatures, although Starfleet scientist's have determined that the creature under goes an asexual replication of splitting off a portion of its own mass once the size in SU's for the mouth has reached the Maximum SU's. This usually happens in an asteroid field where the creature will split 30% of its mass off into 2200 creatures of 150 SU's and are left to feed in the asteroid field.

Few creatures grow beyond size 4 as they are destroyed by hunters or destroyed by supernova's or starve as they are too small to feed themselves or too immature to search for food.

The stomach

The creature's stomach may be large enough to hold a number ships equal to half its mouth size. So a size 16 creature could hold eight Borg cubes easily enough.

The Age of a creature

To grow to its full size takes 12 to 15 centuries and could easily live forever if recourses are plentiful. These creatures grow smarter as it ages.

Our game

The USS Coyote a Federation research ship equipped with the most powerful starship shields studied the creature for several weeks even going as far as toeing in asteroids to feed the creature. The vessel launched sophisticated sensor probes inside the creature discovering that the creature's hostile interiors. Caught in the creature's gravimetric pull the Coyote was drawn inside and was forced to destroy the creature in their escape so they think.

Tholian Disruptors
Level
Is'harain
SUs: 3
Damage: 40
Power: [8]
Range: 6/6,000/15,000/25,000
Shots per round: 1

Ner'harex
SUs: 6
Damage: 50
Power: [5]
Range: 15/15,000/50,000/90,000
Shots per round: 1

Der'ain
SUs: 9
Damage: 90
Power: [9]
Range: 20/20,000/60,000/150,000
Shots per round: 2

Ne'keleran
SUs: 9
Damage: 130
Power: [19]
Range: 25/25,000/75,000/175,000
Shots per round: 2

Neras
SUs: 10
Damage: 140
Power: [16]
Range: 20/20,000/60,000/150,000
Shots per round: 3

He'rex
SUs: 16
Damage: 150
Power: [15]
Range: 30/30,000/75,000/175,000
Shots per round: 3

Na'rax
SUs: 12
Damage: 160
Power: [16]
Range: 35/35,000/80,000/200,000
Shots per round: 2

Dar'ath
SUs: 13
Damage: 180
Power: [18]
Range: 35/35,000/80,000/200,000
Shots per round: 3

Dareth
SUs: 14
Damage: 200
Power: [20]
Range: 20/20,000/60,000/150,000
Shots per round: 4

Daleth
SUs: 17
Damage: 170
Power: [17]
Range: 40/40,000/90,000/250,000
Shots per round: 5

New Emergency Power Systems
Type G
SUs: 60
Power Generated: 60

Type H
SUs: 70
Power Generated: 70

Type I
SUs: 80
Power Generated: 80

Type J
SUS: 90
Power Generated: 90

Customizer Beams
Type I
SUs per 40 emitters: 4
SUs in Cannon Form: 14
Range: 15/36,000/110,000/325,000
Up to 2 shots per round
Damage: 100 [10]

Type II
SUs per 40 emitters: 8
SUs in Cannon Form: 18
Range: 15/36,000/110,000/325,000
Up to 3 shots per round
Damage: 200 [20]

Type III
SUs per 40 emitters: 9
SUs in Cannon Form: 24
Range: 20/40,000/150,000/350,000
Up to 3 shots per round
Damage: 280 [28]

Type IV
SUs per 40 emitters: 12
SUs in Cannon Form: 26
Range: 25/45,000/200,000/400,000
Up to 5 shots per round
Damage: 320 [32]

Type V
SUs per 40 emitters: 16
SUs in Cannon Form: 32
Range: 25/45,000/200,000/400,000
Up to 5 shots per round
Damage: 360 [36]

Type VI
SUs per 40 emitters: 24
SUs in Cannon Form: 40
Range: 25/45,000/250,000/450,000
Up to 5 shots per round
Damage: 400 [40]

The Up to X shots per round indicates the weapon's multifire ability in cannon form. In array form, treat them as you would a phaser.
Each turn, you can reset a customizer to a particular beam/pulse weapon type, up to the customizer's max range/damage.

Customizer Targeting Interlocks
Class Alpha
SUs: 4
Accuracy: 3/4/6/9

Class Beta
SUs: 8
Accuracy: 3/3/5/8
Maximum Torpedo Spread: up to 20 for the TFD era

New Cloaking Devices
Class 11
SUs: 33+Size
Rating: +11 to roll

Class 12
SUs: 36+Size

Rating: +12 to roll

New Crew Quarters
Holoquarters
SUs: 1 per 20 quarters
Entertainment Rating: 2 per 10 quarters

These are for two of the Post-TNG Eras, The Final Dimension (2485-2506), and United Federation of Galaxies (29th Century), and they use more advanced systems

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Structural Inte

Slip Cores
Type 14/T
Power Generated: 700-799
SUs: 150

Type 15/U
Power Generated: 800-899
SUs: 160

Type 16/V
Power Generated; 900-999
SUs: 160

Type 17/VA
Power Generated: 1000-1999
SUs: 180

Type 18/VA
Power Generated: 2000-2999
SUs: 200

Impulse Engines
Type 9: Generates 72 Power/Round (.8c/.96c) [45]
Type 9A: Generates 80 Power/Round (.8c/.97c) [48]
Type 9B: Generates 96 Power/Round (.82c/.97c) [52]
Type 10: Generates 120 Power/Round (.84c/.98c) [58]

Emergency Power Cells
Type G: 55 Power [55]
Type H: 60 Power [60]
Type I: 65 Power [65]
Type J: 70 Power [70]
Type K: 75 Power [75]
Type L: 80 Power [80]

Customizers
UCC-1: 150 (.1 per emitter)
UCC-2: 220 (.2 per emitter)
UCC-3: 240 (.2 per emitter)
UCC-4: 260 (.1 per emitter)
UCC-5: 280 (.25 per emitter)
UCC-6: 320 (.4 per emitter)
UCC-7: 280 (.2 per emitter)
UCC-8: 360 (.3 per emitter)
UCC-9: 400 (.4 per emitter)
UCC-10: 440 (.45 per emitter)
UCC-11: 460 (.5 per emitter)
UCC-12: 520 (.6 per emitter)

UCC-9-12 Range:
15/45,000/150,000/400,000

Shields
Type 8
SUs: 8 x Size
Protection: 1410-2999

Type 9
SUs: 9 x Size
Protection: 3000-3999

Type 10
SUs: 10 x Size
Protection: 4000-4999

Hadron Torpedoes
UCHD-1
Range: 9/27,000/80,000/250,000
Damage: 600
SUs: .5 per 10 torpedoes

UCHD-2
Range: 15/345,000/1,400,000/4,700,000
Damage: 600
SUs: .5 per 20 torpedoes

UCHD-3
Range: 20/346,000/1,450,000/4,800,000
Damage: 750
SUs: .5 per 20 torpedoes

UCHD-4
Range: 25/350,000/1,500,000/4,900,000
Damage: 900
SUs: .5 per 40 torpedoes

UCHD-5

Range: 26/360,000/1,750,000/5,000,000
Damage: 980
SUs: .5 per 45 torpedoes

Gorn Spacedock Tech
GBL-1
SU: 4
Range: 9/27,000/80,000/250,000
Damage: 60
Power: [6]
Up to 1 Shot per Round
Note: Can Only use Type G1 Targeting Sensors

GBL-2
SU: 8
Range: 9/27,000/80,000/250,000
Damage: 60
Power: [6]
Up to 2 shots per round

GBL-3
SU: 8
Range: 90/28,000/90,000/275,000,
Damage: 100
Power: [10]
Up to 2 Shots per Round

GBL-4
SU: 10
Range: 10/30,000/100,000/300,000
Damage: 120
Power: [12]
Up to 2 shots per round

GBL-5
SU: 16
Range: 10/30,000/100,000/300,000
Damage: 120
Power: [12]
Up to 3 shots per round

GBL-6
SU: 20
Range: 9/27,000/80,000/250,000
Damage: 140
Power: [4]
Up to 2 shots per round

GBL-7
SU: 24
Range: 10/30,000/100,000/300,000
Damage: 120
Power: [12]

Up to 4 shots per round

GBL-8
SU: 30
Range: 10/30,000/100,000/300,000
Damage: 120
Power: [12]
Up to 5 shots per round

GBL-9

SU: 18
Range: 10/30,000/100,000/300,000
Damage: 100
Power: [10]
Up to 2 shots per round

GBL-10
SU: 38
Range: 10/30,000/100,000/300,000
Damage: 160

Power:[16]
Up to 3 shots per round

Type G1 Targeting Sensors
SU: 1
Acc: 7/8/10/12

STAR WARS
STARSHIP CONSTRUCTION NOTES

This is how I convert other series gaming ships over to spacedock system

These ships are useable in any of the Universe Version I have generated such as Andromeda, Battlestar Galactica Stargate SG1 and other series. Even though some of these ships are higher than normal scale levels of the SU's normally used I left them that way as the ships systems are higher ranged than before. I must admit that some systems are copied from one ship to another and did that to speed up their generation. The thing I had to think about the most was the in ability of lasers to affect the shields and cause damage, and I decided to make the Turbolasers and lasers of the Star Wars universe equal to that of the weapons of the Star Trek Universe in its damage potential.

Using the latest Star Wars as an example, I opened up the book and started by looking at the stats of the ships that I wanted to convert over and the work others had done in the subject. In converting over the first ship I chose the Republic Cruiser, the Venator-class Star Destroyer that our group was going to use as a companion to the Miranda-class Cruiser in the adventure. I used the Star Wars Role-playing game Starships of the Galaxy by Wizard of the Coast as the primary reference along with the DK Star Wars cutaway books.

The conversion is simple math. First I started with the size of the ship using the Spacedock to judge the size of the ship. The Venator figures at 1137 meters into a size 11 starship. Next, I noted the weapons figure as 180 damage as there are larger more powerful ships in the Star Wars Universe but didn't want a ship that was to powerful and 180 hundred damage worked well with the Babylon 5, Galactica (TOS not so much the resurrected series but they fall within the parameters using Babylon 5 Wars) and Andromeda universes. If I wanted to find the fire power of a ship in comparison to that of the Venator-class I would figure the ships full fire power such as 4d10x2 damage which would be 80 total damage. The Venator-class that is 8d10x5 equaling to 400 total damage. Dividing the 80 by 400 gives an answer of .2 and then multiplying against the 180 weapons to fire 36 damage against another target. I could have left the damage at 36 or even have rounded it up to 40 damage, I do this for shields and any other setting I have two stats that I can work with. Next, I looked to the Shields and then came up with two ideas of how to generate the

ratings. The first was to use the Shield rating in the book as the thresh hold work from there by tripling the rating to give a standard shield. The second was to give the Star Destroyer a combat shield rating that was defensible to another ship. I used the second as a starting point.

Then I looked at the Star Wars communication system and decided that the larger ship required a holographic communications system as part of the standard systems in a ship. So I decided to give all ships a standard of holographic communications systems with some exceptions to some of the smaller ships. In the Star Wars universe the holographic communications is quite widely used in the stories and less so for the view screen technology.

The crew of 7,400 and 2000 clone troopers for the evacuation limit I multiplied by 12 to get 112,800. In figuring the evacuation limit I looked at 2 – 15 times to the creation of the limit. These multiplications generate 18,800 to 141,000 evacuation limits and need to generate an extended life support list. The 2000 troops were figured in as barracks alone. I used the TOS-Era Standard Quarters chart to generate the crew quarters. For the Venator I used the Cruiser quarters for the settings but in hind sight I should have used the Escort. The measureable difference in barracks would have been 3184 crewmen in barracks to the 3110 that I figured up. In the end the difference in two SU's used would have been.

As for the Star Wars FTL or Hyper Drive I used the conversion chart that Owen E. Oulton created for the West End 6d version to generate up the hyper speed vessels, he has it posted on his site as a starting point in generating the Hyper Drive Systems. These vessels are not quite Star Wars vessels any longer some of these ship have transporters that are installed as we have used in an adventure.

For the rest of the ship I worked out the details till I was satisfied with the finished product of the Venator-class Star Destroyer. The big problem was that the Structural Units were way over and then cut down here and there till I worked down to a little more acceptable level. Even without the transporter systems that the ship was far over budget. I decided that the Venator-class was at a good point as it was a large ship.

Personally I would have liked to added a thousand points of Ablative Armor to the ship but in the end I did not. I do not want to go down that street just yet. Yet some ships in the Star Wars universe would have a nice look with Ablative Armor. The chance of defeating them would have become next to impossible. Against a Death Star Primary weapon that could easily destroy a medium small ship with a single shot. A continuous beam against a Galaxy-class or an Armored Borg cube would have equal devastating results for either ship.

As far as I know the Star Wars ships do not have food replicators and replication technology I did this as part of the generation that I wanted the ships to be a bit of difference than to the traditional Star Trek ships. A traditional ship would have food stores and galleys and no replication technology. I did this in a way of generating ships quicker and more efficiently.

I used a similar method converting the Andromeda, Babylon 5, and Battlestar Galactica, but the Andromeda I used more of the conversion system from the web site Relic by Owen E. Oulton and the ships from RPG Gamer org along with the Andromeda version of Babylon wars. Most all of the Conversion, I made for the Babylon 5 ships came from the Mongoose Publishing Babylon 5 the Ships of the Galaxy and a few from the Babylon Wars.

In creating the first ship is the quick and easiest part compared to generating ships equal to that of other ships keeping them balance to one to another. A fleet takes weeks to months to generate doing the math to balance the ships just as I do when generating a ship from scratch in Spacedock. Some ships I have taken several passes at when generating them as I am not completely satisfied with the results from the first, second or third attempt.

In conclusion I have concluded that the Star Wars ships are not wholly compatible in the Star Trek universe as they are. These ships are as close as one could get without completely converting them into something else. Much of the other ships from other movies really don't fit into the Star Trek universe or Spacedock without some sort of conversion to the ships themselves.

The Republic Venator-class Cruiser would be a good ship to take up against The Original Series Version of the Battlestar Galactica in a head to head fight or against the Cylon Base ship with the 300 fighters against the Republic Cruisers and its 384 fighters.

Transporters are generally not a part of the many of the other series but as some of these ships have been used in the some Star Trek episodes. I could have removed these systems from those ships but chose to leave them just as they were when I generated those years ago. This is not as I think that they are better that way it is this was the way they were generated into the ship.

CONSTRUCTION NOTES
Using the following books Wizard of the coast Star Wars Role-playing Game Saga Edition Core rule book and starships of the galaxy, several of the West End Games Star Wars 6D games, DK Star Wars Episode I incredible cross-sections, DK Star Wars Episode II incredible cross-sections, and DK Star Wars Episode III incredible cross-sections to generate the ships in connection with Star Wars version of Babylon 5 wars.

I will later on generate a hyper drive chart to install the hyper drive and the equation for the travel is the same as the Transwarp drive and quantum slipstream. I used the main listing for the Hyper drive and did not see that the installation of the secondary or backup hyper drive was needed, yet if some time in the future the addition of the secondary or backup hyper drive can be added.

After finishing the systems I adjusted older ships till they reflected the imagery of the fleet of ships that represent the ships from the Star Wars Universe. The

Additional notes: The Ion Cannons disable (10 x power fired) the power that is used by the system that is hit by the weapon. The neighboring systems can be affected by the hit is more powerful than the system that is hit.

Here is the Imperial Interdictor's gravity generators. The Gravity generators cost 10 x size for both power and SU's cost. With one generator active the gravity well preventing a vessel from using any FTL is four MU. As an example the Interdictor with all four of the gravity well generators active would create a gravity well covering 16 square MU's or octagonal depending on how you use a board. The gravity well prevents the hyper drive from allowing an equipped vessel to make the jump to hyper space yet does not affect the formation of warp drive fields from forming. Other forms of FTL, such as the Battlestar Galactica FTL (folded space) generators are affected. The Babylon 5 Jump point generator may open an entrance into hyperspace.

All these ships do not have Warp Nacelles that are extended out of the hull the embedded nacelles rule can be called into play. But I did not include the bonuses and costs to the ships. If someone was interested they could automatically apply the bonus and costs to the ships.

BABYLON 5 WARS CROSSOVER
The crossover using the Babylon Wars tactics is based on the use of one ship in this case the Galaxy-class Explorer as a base line starship.

For a starship size I use any data available and if that is not available a little common sense to estimate the size of the ship. Common sense sometimes even this is not capable of getting it right, but it is close.

Resistance is generated by adding fwd/aft defense and stb/port defense and estimating it against the Galaxy class. Or the percentage of points from the base line ship but this does not work for all ships.

Using the Icon Recognition to identify any new technology that needs to be generated for the ship. Most like weapons can be generated out of the technology already in Spacedock.

Using the Star Wars: Clone Wars Republic Venator Star Destroyer's and a Star Trek; The next Generation Federation Galaxy-class Explorer. The Galaxy class has a combined score of 33 and the Star Destroyers has a combined score of 33 giving the Star Destroyer the same Resistance as the Galaxy-class. Now if any ship having more or less rating could give a new resistance to the numbers.

In generation of the weapons fire in this version I come up with the weapons fire as the same as a galaxy class even though using the different versions that much of these ships are generated off of at another level. But then looking at other ships the weapons I decided that the damage would be far too high for other ships.

Much of these other systems are generated in the same way. In designing the vessels for this or any other group of ships out of movie ships or the use of creating them off a different game system. The versions are clearly different and I generated a second version of some of the ships as examples in the game. They appear to be over gunned versions of the ships in the game versions. The limited vessels are just as capable in a fire fight to those of the larger vessels.

STAR WARS HYPER DRIVES
The hyper drives are much like the transwarp drives in the fact that they travel faster than most Federation starship. Such here is the conversions.

Hyper drive Class -- ÷ or x warp factor 6* -- SU's --- power cost (Round up SU's and Power**)**

Class .25 --- ÷ or x 15 (5880 c)-- Size x 15 - x 15 **
Class .5 --- ÷ or x 14 (5488 c)-- Size x 13 - x 14 **
Class .75 --- ÷ or x 13 (5096 c)-- Size x 12 - x 13 **
Class 1 -- ÷ or x 12 (4704 c)--- Size x 11 -- x 12
Class 1.5 -- ÷ or x 11 (4312 c)--- Size x 10 - x 11
Class 2 -- ÷ or x 10 (3920 c)--- Size x 9 - x 10
Class 3 --- ÷ or x 9 (3528 c)-- Size x 8 -- x 9
Class 4 --- ÷ or x 8 (3126 c)-- Size x 7 -- x 8
Class 5 --- ÷ or x 7 (2744 c)-- Size x 6 -- x 7
Class 6 --- ÷ or x 6 (2352 c)-- Size x 5 -- x 6
Class 7 --- ÷ or x 5 (1960 c)-- Size x 4.5 -- x 5
Class 8 --- ÷ or x 4 (1568 c)-- Size x 4 -- x 4
Class 9 --- ÷ or x 3 (1176 c)-- Size x 3 -- x 3
Class 10 --- ÷ or x 2 (784 c)---- Size x 3 -- x 2 .75
Class 11 --- ÷ or x 1 (392 c)---- Size x 2.5 -- x 2.5 *
Class 12 --- Twice time travel (196 c)- Size x 2 -- x 2
Class 13 --- Three time travel (132 c)- Size x 1.75 -- x 1.75
Class 14 --- Four time travel (98 c)-- Size x 1.5 -- x 1.5
Class 15 --- Five time travel (79 c)--- Size x 1.25 -- x 1.25
Class 16 --- Six time travel (65 c)-- Size x 1 -- x 1
Class 17 --- Seven time travel (57 c)-- Size x .9 - x .9
Class 18 --- Eight time travel (49 c)-- Size x .8 - x .8
Class 19 --- Nine time travel (44 c)-- Size x .7 - x .7
Class 20 --- Ten time travel (40 c)--- Size x .6 - x .6
Class 21 --- Eleven time travel (36 c)- Size x .5 - x .5
Class 22 --- Twelve time travel (33 c)-- Size x .4 - x .4
Class 23 --- Thirteen time travel (30 c)- Size x .3 - x .3
Class 24 --- Fourteen time travel (28 c)-- Size x .2 - x .2
Class 25 --- Fifteen time travel (26 c)- Size x .1 - x .1

* This is equal to Warp Six Velocity equals 392 time the speed of light. ** Extremely rare and costly.

I generated this out of the Star Wars Book Starships of the galaxy by wizard of the coast a 20D version. The travel times to another planet in the star Wars Universe takes less time than that of the Star Trek Universe.
* The travel time to the next star system (approximately 5 light-years) at Warp 6 is five days. A class 1 hyper drive would change the travel time to 10 hours. A class .5 the Millennium Falcon would travel the same distance in 8.57 hours. (Any faster than Warp 6 the travel times begin reaching the Transwarp variable and the travel becomes next to instantaneously travel. You still need to sit back and enjoy the journey to the next stop seeing the sights passing by at speeds faster than light.) Warp six speed equals 392 time the speed of light

Warp 5 = Across Sol System - 2 minutes = to nearby system (5 light-years) – 5 Days = Across the Sector (20 light-years) – 19 days.

There is a second version if there is a warp drive installed the cruising warp speed is used as the multiplier for the hyper drive. I did not like this way as the travel times were too short in minutes.

Let me know what you think as I intend to replace the Faster then Light drives in the Star Wars ships to this from the warp drive engines that I used already. If you have any better ideas in how to do this post it as I have not any better idea's to date. At present I have not come up with anything better for the warp core and it will remain the same for the time being yet I see that the Star Wars ships power systems are larger version of the Fusion Reactors called Main Reactors and I used the Warp core table to generate the reactors.

I used the main listing for the Hyper drive and did not see that the installation of the secondary or backup hyper drive was needed, yet if some time in the future the addition of the secondary or backup hyper drive is needed it can be added with little effort.

The hyper drive is the main idea of interstellar travel and the rules require the ships to be at least three MU's from the Mu that has the planet or any of its moons in. This makes the distance at least for leaving let's say earth thirteen MU's before the Hyper drive can be safely engaged without damaging the drive. The second rule is that the hyper drive that is activated in orbit will receive a burnout and each hour it is run while the drive is under this condition receives plus one to difficulty till failure result and can strand a ship in the middle of nowhere and the hyper drive must be repaired. The damage is the SU's equaling the time traveled and the damaged Su's cannot exceed the hyper drive SU's. If the damaged SU's reach the total SU's for the hyper drive the system has been destroyed and must be replaced.

If the hyper drive is damaged the hyper drive has a chance of not functioning with an increases difficulty of +3 to the usual test roll. The difficulty is 12. When engaging hyper drive within the thirteen MU's the vessel risks the damage to the hyper drive with a difficulty rolls of 10. This is where Warp drive becomes the superior drive as it can be engaged in the high atmospheres of the planets.

Usually a sensor scan should be made to check for another vessel that could be blocking its jump to faster than light speeds. At hyper speed the chance of collision is already computed. Before the jump the pilot must make a navigation check to ensure it is a safe course to take at hyper speed.

While at light speed or hyper space speeds the ship cannot use its weapons, lasers or missile weapons unless the weapon is created to travel through hyper space solo. If attempting to destroy another ship the only method is ramming the other vessel if it is close enough or dumping the cargo in the path of the other ship. Depending on the size of the cargo the damage could be devastating to the hull. While at light speeds the cargo is a bug on the windshield causing damage. A weapon like a bomb could destroy another.

The impact of one cubic meter of cargo does 1 SU of damage starting at the hull. Most ships can eject the cargo from the hold even while at faster-than-light speeds. Only one third of the ejected cargo will impact the opposing ship to cause damage.

The ships hyper speeds can be adjusted to travel along side another a ship that is slower than itself. Even thought the ships are traveling the same path they both must make a navigational check before the jump to light speed.

Rules: Basic rules for the use of the Hyper drive systems is simply this: Absolutely no combat while at hyper speeds. No Atmospheric Jumps. A damaged Hyper drive does not work.

BLASTER CANNONS, TURBOLASER, LASERS CANNONS AND LINKED WEAPONS
There is nothing more iconic than the Jedi Lightsaber but the blaster and starship Turbolaser Cannons are next. Ever sense the first scene where the Imperial Star Destroyer and Rebel Blockade Runner exchanging fir.

The construction of the Turbolasers are similar to the construction of Phasers and disrupters. The more shots from the lower weapons than the top do to power constrictions.

Linked weapons are generated as a single weapon. Firing is not counted as a single emitter. The fire from the weapons may not appear as the same.

Rule: In a crossover series a Turbo lasers and lasers are equal to that of the phasers even though in the The Next Generation Era the Laser weapons are ineffective against the Navigational shields of Federation starships. I think that The Original Series and Enterprise Era ships may have had weakness to the Laser Weapons and in our games that is how we played the game.

ION CANNONS
The Ion Cannon is an energy damping device that is a short lived depletion device. Once the device has struck the energy damping is lasting for a number of rounds. Ion Cannons are useful combat tool in battle that lowers the targeted ships shields without damaging the targeted ship. Pirates and raiders use the Ion Cannons to take a ship without damaging the valuable cargo on board. Using an Ion Cannon an attacking vessel can disable shields, weapons and engines with little damage to the ship.

The construction of the Ion Cannons is basically build using the Phaser chart but instead of having damage it is power damping the ships powers. Ion Cannons rapid fire and disable individual parts of the ship.

Example an Imperial I Star Destroyer fires its Ion Cannons on a Rebel Blockade Runner and disables 25% of the shields. The Imperial Ion impacts with several shot at 50 points of damping 350 available and after the threshold protection is taken away leaves 150 points dampened to the shields. The average damping lasts for ten minutes (60 rounds). The Rebel Blockade Runner shield protection is 600 after threshold and Ion Cannon impact the shields are at 450 protection. The shields now have 75 percent of their original protection. Any additional Ion Cannon impacts would damping increase and restart the recovery time. This works the same for the hard ware of the ship as well and last just as long. (I chose the iconic ships when Star Wars is mention the in my mind's eye lashes to from the beginning.)

There is an option to this each impact threshold not counting causes the disruption for two minutes for each hit so it figures that the several round from above would last fourteen minutes and then longer with each additional impacts. Recharging the shields or regenerative shields is ineffective against the Ion damping effect.

Shields can be adjusted to resist the Ion Cannons assault by fifty percent but lowers the resistance from damage for every 10 resistance to Ion Cannon and lowers the threshold by 5. A complete defense against the Ion Cannons requires an exact modulation frequency of the Ion Cannons emitters and being that ships like a Star destroyer has more than one Ion Cannon the resistance of one cannon is different from cannon to cannon.

This technology would work as well in the Star Trek Universe against ships, not to mention the Babylon 5, Battlestar Galactica the original series and Stargate.

A Personal Comment: I have been working on many Star Wars starships and see that the Ion Cannons are used more during the Empire/Rebellion era than during the Clone Wars era. I was wondering if the Ion Cannons in the Clone Wars era was a relatively new weapon system available. The only answer that I could come up with is the ships of the Empire were constructed to patrol and capture in attempt to stop the Rebellion. It was just a thought that struck me in creating the ships.

In the use during play with the Ion Cannons the weapons are a little difficult for the hard core Star Trek players to adjust to. There has only been the Breen who have had weapons that are capable of disabling a ships power and systems.

Large scale anti starship cannons are capable of disabling a starship in orbit of a planet from the surface of the planet. An ION Cannon can destroy a vessel with multiple shots causing the ship to burn up in the atmosphere in an uncontrolled entry into the atmosphere of a planet. Like all other Ion Cannons the Ion disabled vessel is vulnerable to attack from other weapons and such.

Crew Quarters
After completing much of the ships, I fell upon the best crew quarters set up.
Crew Quarters, Barracks 50%, Spartan 23%, Basic 20%, Expanded 5%, Luxury 1%, Unusual 1%

BACTA TANK
SU's Cost: 1 SU per each tank on the ship
Power Cost: 1 power per round

A Bacta units installed into a ship adds a (+1) to any use in healing any biological species. The Bacta tanks cannot be any more than that equal to that of the rating of the medical facility. Therefore, a rating 5 medical facility could have no more than five tanks and no more. A standard Bacta Tank holds up to 300 liters of Bacta. Each hour in the Bacta tank, the patient gains a plus one in health. Recovery takes half the time of standard

medical treatments. Each emersion into a Bacta Tank uses one liter of Bacta.

The Exception to this is the medical ships can have ten times the medical facilities rating. A space station has a limit of one hundred times the medical rating.

Notes: During the cross over into the Star Wars Universe the use of the Bacta Treatment, tanks and the medical benefits have been shared with Starfleet personnel. The treatment has been refined to the use of an injection for minor wounds and emersion into a tank for more severs wounds. Starfleet has devised the ability to replicate the Bacta liquid gels. After the interdiction of this type of medical treatments only a few of the Federation starships have had these Bacta Tanks installed on their ships but the knowledge of Bacta has been dispersed to the medical community.

Federation Medical communities have created medical treatments using Bacta gels without submersion into a tank. The personnel heal twice as fast as they would with regenerators and other medical treatments.

Droids
Many of the ships functions can be operated by the use Robots, essentially Droids that are programmed to carry out the duties of the ships crews. Much of the ships engineering operations are carried out by Droids and a few biological organisms. The addition of Droids to Federation starships adds to the ability to repair the ship.

Generating a Droid is much the same as creating an Android such as Data. Most of the Star Wars Universe Droids have some sort of personality and are played just like they are a character as Data is but most Droids are more like the Borg Drones and are just extra characters that are bumped into the course of the adventure.

AG Generators
SU's Cost size 2.5 x size
Power Cost: 1 x size
Anti-gravity systems pulling the weight up to a lighter allowing it to lift the ship from the surface of a planet with the thrusters only. This simply turns the several million metric tons starship into a feather weight. Alone an AG generator can move an object at 1 meter per second but in combination with thrusters or impulse engines increases speeds by .1c of speed. The AG allows the ship to leave the planet's surface with thrusters only. The AG fields may fail and the ship can go crashing back to the ground but this is not a usual happening as most ships that have an AG field has more than one AG emitter to reduce the ships weight but are all under the same cost. A rule of thumb is that the ship has an equal number of generators to the ships size. Alone the AG

Generators would propel the craft at 3.6 kilometers but with a small jet engine would propelle a craft near the highest velocities such as Land Speeders.

Tech
Power Cell Storage Cell
SU's Cost: 1
Charges per Cell 50,000

The Force
The Force is a PSI ability that not all beings have. Ever sense the first cross over between the Star Trek Universe and Star Wars Universe the ability to access the Force has become more prevalent in the Star Trek Universe.

Ever sense the crossover of the Jedi and Sith traditions have begun in the Star Trek Universe. There are a few Jedi Schools in remote sectors of both the Alpha and Beta Quadrants. These schools are kept secret by those who are attending and have attended them. The Jedi have a questionable agreement with the Federation allowing the Jedi to operate and serve on Starfleet starships in advisory and Ambassadorial positions and have been on Special Operations missions with Starfleet personnel. The Federation President has his own Jedi Protector to ensure his safety from attack.

The Fleets
The republic fleet is made up of Venator-class Star Destroyer's and Acclamator-class Military transport are the backbone. The Acclamator-class are the troop carries and were the first of the cruisers provded to the Republic. The Venator-class was added when the need for a pure warship was needed to compete with the larger Separatist warships in battle.

The Separatist fleet consists of Trade Federation Battleship, Providence-class carrier/destroyer/cruiser and Banking Clan Frigates make the back bone of the Separatist fleets. The ships are either converted freighters or transports generated into being warships. Most ships have had upgraded weapons and shielding and armors.

Hanger bays. (The starboard flight pod has no effect to landing capability when it is damaged by weapons fire with the exception of weapons fire.) Roll 3d6 to determine if there is armor on this area on even. Below is to be used with the STARSHIP HIT LOCATIONS TABE although there is no change to how to deal with damage to the ships Shuttlebays.

9   Shuttlebay *(aka The Flight Pods)* (1d6)
     1-3 Landing deck
     4-6 Hanger bay

STARGATE STSRGATE - SG1, Atlantis and Universe STARGATE

Stargate Hyper drive

There are many types of hyper drives that can be installed into the ships that are far faster than the Warp Drive Engines. Each of the drives are powerful engines and are not completely compatible with most technologies of other species while requiring substantial power to operate per round.

Type	SU	Power	Speed
Earth Hyper drive	50	25	.25 light-yrs per rd
Early Goald	100	50	.5 light-year per rd
Enhanced Goald	150	75	.75 light-year per rd
Asguard drive Enhanced	200	100	1 light-years per rd
Asguard drive	300	150	2 light-years per rd

Naquada Reactor

A naquada reactor generates power equal to that of the SU's cost.

Multiple Tube Torpedo/Missile Launchers

SU's Cost: costs as much for the basic launcher for each of the tubes mounted in a single group
Power Cost: 20 power per tube plus 5 per each torpedo/missile fired

The launcher can fire for the max amount of the torpedoes/missiles per tube up to 12 per tube this frees up the launcher to need only one targeting system and can be a slight savings but when damage to one tube is sustained the launcher is totally off line. High Yield launchers work the same.

Standard Version of Launcher
Enterprise refitted version
Type II Photon Torpedo Launcher <15 x 2 = 30>
Standard Load: Type II torpedo (200 damage)
Spread: 6
Range: 15/300,000/1,000,000/3,500,000
Targeting Systems: Class Beta (Accuracy 4/5/7/10)
Power: [20 + 5 per torpedo fired]
Location: Forward Ventral, starboard side (or port side) of structure attached to connecting inter hull
Firing Arc: Forward, but are self-guided

Remodeled version of Launcher
Twin Tube Type II Photon Torpedo Launcher <23>
Standard Load: Type II Photon Torpedo (200 damage)
Spread: 12 (six per tube)
Range: 15/300,000/1,000,000/3,500,000

Targeting Systems: Class Beta (Accuracy 4/5/7/10)
Power: [40 + 5 per torpedo fired]
Location: Forward Ventral of structure attached to connecting inter hull
Firing Arc: Forward, but are self-guided

This is a difference of seven SU's but this is just a version that I have come up with and be extended up with multiple launchers using the same technique as here.

A Special Remodeled Version of Launcher I originally intended this for the Stargate Atlantis version of the city ship but never fully installed it. As seen in the Stargate SG1 series the ancient defense outpost fires thousands of the "Squid missiles" in a single volley against a Goa'uld mother ship. The weapon system is a devastating weapon that can be mounted somewhere on the planet.

Seven Tube Type II Photon Torpedo Launcher <(5 x 7 = 35) + ((12 ÷ 2 = 6) x 7 = 42) + 5 + 2 = 84>
Standard Load: Type II Photon Torpedo (200 damage)
Spread: 84 (12 per tube)
Range: 15/300,000/1,000,000/3,500,000
Targeting Systems: Class Beta (Accuracy 4/5/7/10)
Power: [140 + 5 per torpedo fired]
Location: not yet installed on a ship
Firing Arc: Forward, but are self-guided

This is the version I could see installed on a vessel that is very large and heavily armed and capable of firing on a single target with devastating effectiveness. Remolded version would be a power hog and destroying a single target in a single volley.

As a planetary defense weapon mounted somewhere outside of a city the weapon can fire a devastating attack on multiple orbiting ship. This would be a purely military weapon used as a weapon of mass destruction if mounted on a starship.

Ancient Launchers
The Ancient launchers are built up the same as the standard Photon launchers but where they differ is that they fire more "Squid Missiles" in a single launch. The Launchers are High-Yield. The Squid Missiles are smaller and store at 60 per SU and can launch six per a single photon torpedo.

These launchers are located about the city ready to use in an instant.

Ancient "Squid" Missile

The Ancient Missiles do 100 damage to ten rounds to a total of 1000 damage per missile. The single impact to shields cause half the full 1000 damage and take more to cause severe damage. However, when they strike an unshielded ship's hull the damage is one hundred damage per round per ten rounds. The Squid missile is not even close to the design of a Photon Torpedo and causes damage by the use of a energy field that is much like that of phaser or disruptor weapon projected around the missile. The missile travels at 85% the speed of light With a range three times greater than a photon torpedo.

Expanded Star Trek Spacedock for 25th century and beyond

In generating some of the future starships I worked on the note that I present below. Use if you need. Any ship that is a time traveling vessel consult my time travel notes posted on the site. I also have generated I hope is a few surprises for you. Below I have posted such a starship from the future so if encountered by a 22nd, 23rd or 24th century ship they can work well with one another. I generated this primer for our group that wanted to generate starships that are beyond The Next Generation and some who played the online game. Some of this can be used in the Andromeda spacedock notes and even the Stargate at the moment I cannot think of anything off the top of my head that they could be used in.

Let me know what you think.

Size scaling stays pretty much the same as the spacedock. I discovered with these more advanced ships that there is a need for additional SU's for the more advanced technologies. For each additional century I allow for an additional 10 to 15 percent more SU's per size of starship. So a size 5 ship would normally have 900 – 1,900 SU's available but a 25th century starship would have 1035 – 2185 SU's thus a 285 SU's with the 15% for additional advancements in technology. Where as a 30th century vessel same size would have 1710 – 3610 SU's allowing to advance the ships.

Reisistance - the ships resistance in crease by 2 each century.

Borg Ship Regeneration any starship 26th century or beyond are allowed to have the ship regeneration systems.

Structural Integrity Field
Class………..SU Cost……Protection
Class 8 EX…33+size……..110/160
Class 9 EX…36+size……..120/180
Class 10 EX..39+size……..130/190
Class 11 EX..42+size……..140/210
Class 12 EX..46+size……..150/225

Crew Size see computer automation below

Crew Quarters have stayed pretty much the same.

Basic, reserve Emergency life support and gravity stay the same.

Consumables for all ships 26th Century and beyond the consumables cost 25% less as starship efficiency has improved. So for a Galaxy class in the 24th century has 3 years' worth of consumables at an SU's Cost of 24 but in the 26th century the ship would be charged for 18 SU's for the same Consumables.

Replicators operate the same but you no longer have the wall replicators in the quarters you tell the computer where to deposit the food and it appears as well as the small net work.

Medical – the Medical systems operate the same but 26th Century and then again for the 28th and then the 30th century the each increase +1 to the medical bonus with and an additional 10 SU's per bonus. So a 30th century ship could have a +5 medical bonus. Power increases the same per +1 power per bonus.

Recreation facilities expand by adding Holographic technology all over the ship as a cost of size times 3 for power and SU's in addition to the other details.

Personnel transport acts as the same but the use of instantaneous transport to various section of the ship comes in around the early 30th centenary at a cost of 4 times the SU's and double the power requirements.

Fire suppression, cargo holds and escape pods work the same with the exception that the escape pods can carry a passenger in suspended animation for five years to the nearest safe Class M world if so desired.

Somewhere in the 26th century the starships are either equipped with Quantum slipstream or Transwarp drives. With these engines all warp factors are available but still need the PIS injectors for duration of travel at these speeds before going to either Quantum Slip Stream or Transwarp speeds.

Impulse speed remain the same but with the cost of 5 SU's the Impulse Engines generate an additional 8 power to the engine up to 100 power per the engine. As for speed the for every .05c added to the speed up to .95c costs 2 SU's unless there is a power increase already. No starship can pass .98c as it would be easier to just to go to warp speeds.

Modified Warp Drive Systems Table
Warp Engine….SU……..Power Generated/round
Class 14/X……..150……..700-749
Class 15/X……..160……..750-799
Class 16/X……..170……..800-849
Class 17/X……..180……..850-899
Class 18/X……..190……..900-949
Class 19/X……..200……..950-999
Class 20/X……..210……..1000-1049
Beyond the Class 20/X, add +1 SU per +10 power [or

fraction thereof] or use the Experimental chart above.)

Emergency Power extends up to providing 100 power on the following list and the Centuries available.

Type G (Generates 60 power/round) <60 SU's> Available 25th Century
Type H (Generates 70 Power/round) <70 SU's> Available 26th Century
Type I (Generates 80 Power/Round) <80 SU's> Available 27th Century
Type J (Generates 90 Power/round) <90 SU's> Available 28th Century
Type K (Generates 100 Power/round) <100 SU's> Available 29th Century

EPS Grid works the same.

Bridges and separation systems the same. This includes the Multivector Assault Mode.

Computers - the Quantum computers that are developed in the take 26th century cost four time and automatically have a bonus of +1 for any test and can be added to the upratings and require 8 power to operate per core.
Computer Upratings
Package………SU's…Power…Computer Test Bonus
Class Gamma…6…….3……….+3 (Available after the late mid 25th century)
Class Delta……8…….4……….+4 (Available after the late mid 27th century)
Class Epsilon…10…...5……….+5 (Available after the late mid 29th century)

Computer automation - A starship with computer automation allows a starfleet cadet and a chimp Captain to command even a Galaxy class starship. Computer automation requires 10 power per round and cost 10 SU's per size. With the Computer Automation the ship can not only pilot its self and operate independently with no crew so the crew may be a tenth of the number that an un-automated ship would have. (Note: these ships could have a holographic Avatar to liaison better with the crew much like the starship Andromeda of Gene Roddenberry's Andromeda has.) This system requires the most Flight Control System of systems of 4, and coordination 3 to have. Once the system is engaged the ship can pilot itself and even participates in complex combat maneuvers.

Navigational Deflector extended after 26th century for range changes to 15/50,000/100,000/250,000 costing the same for power but now cost five times size for SU's.

Expanded Long Range Sensor Ranges

Here are some new sensors that can be applied to the 25th and early 26th century of starships to come with little change to the scales. The sensors are not too powerful but have longer ranges than that of the previous generations. These sensors can also be applied to more advanced starships the Type 14 EX through the Type 15 EX are useable in the early 26th century only. I also set up a new range difficulty for all post Next Generations starships and stations. Strength and gain bonus's can be added to the lateral and navigational sensors as well at the stated costs.

Range Difficulties for detecting objects with Post TNG-era long-range sensors are 3/4/6/9.

Long-Range Sensors Table (this is what I have done so far but if you want one that is longer choose one that is either half or a third or quarter and double or triple cost of other.)
Package…………SU………Range (Point blank/short/medium/long)
Type 9 EX……….36………High Resolution: 7 Light-years (0.7/0.8 – 1.4/1.5 – 5.3/5.4 – 7.0)
……………………………Low Resolution: 19 Light-years (1.0/1.1 – 6.0/6.1 – 15.0/15.1 – 19.0)
Type 10 EX……….40……..High Resolution: 8 Light-years (0.8/0.9 – 1.6/1.7 – 6.0/6.1 – 8.0)
……………………………Low Resolution: 20 Light-years (1.1/1.2 – 6.0/6.1 – 15.0/15.1 – 20.0)
Type 11 EX……….44……..High Resolution: 8 Light-years (0.8/0.9 – 1.6/1.7 – 6.0/6.1 – 8.0)
……………………………Low Resolution: 21 Light-years (1.2/1.3 – 7.3/7.4 – 16.0/16.1 – 21.0)
Type 12 EX……….48……..High Resolution: 9 Light-years (0.9/1.0 – 1.8/1.9 – 6.8/6.9 – 9.0)
……………………………Low Resolution: 22 Light-years (1.3/1.4 – 7.7/7.8 – 16.7/16.8 – 22.0)
Type 13 EX……….52……..High Resolution: 10 Light-years (0.9/1.0 – 1.9/2.0 – 6.9/7.0 – 10.0)
……………………………Low Resolution: 24 Light-years (1.4/1.5 – 8.4/8.5 – 18.0/18.1 – 24.0)
Type 14 EX……….56……..High Resolution: 10 Light-years (1.0/1.1 – 2.0/2.1 – 7.0/7.1 – 10.0)
……………………………Low Resolution: 25 Light-years (1.4/1.5 – 8.4/8.5 – 18.5/18.6 – 25.0)
Type 15 EX……….60……..High Resolution: 11 Light-years (1.0/1.1 – 2.5/2.6 – 7.5/7.6 – 11.0)
……………………………Low Resolution: 26 Light-years (1.4/1.5 – 9.0/9.1 – 19.0/19.1 – 26.0)

Strength Package…SU………Strength Rating
Class 11……………22……….11
Class 12……………24……….12

Gain Package……..SU……….Test Result bonus
Class Delta………...24……….+4

Sensor Jamming Device - The Sensor Jamming device is nothing new as there are many ways to jam a sensor scan with the use of flooding space with specific partials while other natural emissions emitted from the other stellar phenomena. This device cuts the need to emit these special particles out with the generation of electromagnetic fields. This adds difficulty to the standard difficulty of the scanning rolls. These devices are clearly an illegal device and prohibited by most space traveling species, as it can be a powerful tool in to criminals. Military Grade Lateral Sensors can detect the source of the jamming devices but nothing much more than that while security vessels and civilian vessels can detect the jamming but not much else while long-range sensors can detect nothing in the area but without explanations. These devices can be placed into a probe or even a small craft that can be dropped allowing the vessel making the deployment to escape the area. The jamming system works with the weapons targeting systems as well as the sensors systems making it almost imposable in targeting a specific target with the sensors.

Class 1 (difficulty increase +3) [4 power/use] <20>
Class 2 (difficulty increase +6) [8 power/use] <30>
Class 3 (difficulty increase +9) [12 power/use] <40>
Class 4 (difficulty increase +12) [16 power/use] <50>
Class 5 (difficulty increase +15) [20 power/use] <60>
Class 6 (difficulty increase +18) [24 power/use] <70>

Flight control systems the same

Navigational computers have new classes
Type…….SU's…Power….Modifier
Class 4…..6…….3……….+3
Class 5…..8…….4……….+4

Inertial Dampening Field (Stabilizers) work the same

Communications for each century add 4 SU's with addition of 2 strength and –1 security every 5 years.

Tractor beams
A class Epsilon is available at a cost of 15 SU's and uses 4 power per strength rating. For a chart use delta but double the weights and ranges.

Transporters
Use the chart but only the light years distances age

available beyond 28th century and Energizing/transition coils go up to 15 as of the end of the 26th century.

Clocking devices increase to type 12 by the end of the 25th century and beyond that your Game Masters call and cost the same as Spacedock.

Security rating the same
Anti-Intruder system the same
Internal Force Fields the same

Science Rating 5 costing 30+size for SU's with 10 power and a bonus of +4 for only the stringent of explorer class starships.

Phasers work the same as the scale going up to type XXV (25). They cost the same with .8 per type and number of shots. Auto-phaser interlock Class Delta costing 5 with and accuracy of 3/4/5/8 comes into existence after 26th century.

Disruptors work the same as the scale going up to a type 28. They cost 2 SU's per shot per type likes.

Torpedoes work the same yields increase only slightly no more than 100 more than whatever the phaser and disruptor ratings are. Feel free to add two more additional torpedoes to the spread per century.

TA/T/TS expands up after 26th century from the Spacedock list.

Class	SU	Power	Strength	Bonus
Class Zeta	21	7	12	+4
Class Eta	24	8	13	+4
Class Theta	27	9	14	+5
Class Iota	30	10	15	+5

Expanded Shielding
Use with caution as these shields are nearly impenetrable with standard phasers and photon torpedoes at certain levels. I would not suggest that anyone replace their shuttlecraft's shields with the Class 20 as it just will not fit into the hull. Numbers wise yah it will but common sense is the key.

Expanded SHIELD TABLE

Shield Generator	SU	Protection
Class 8 (Post-TNG)	8 x Size	1410 - 1600
Class 9 (Post-TNG)	9 x Size	1610 - 1800
Class 10 (Post-TNG)	10 x Size	1810 - 2000
Class 11 (Post-TNG)	11 x Size	2010 - 2200
Class 12 (Post-TNG)	12 x Size	2210 - 2400
Class 13 (Post-TNG)	13 x Size	2410 - 2600
Class 14 (Post-TNG)	14 x Size	2610 - 2800
Class 15 (Post-TNG)	15 x Size	2810 - 3000
Class 16 (Post-TNG)	16 x Size	3010 - 3200

Class 17 (Post-TNG)…17 x Size………...3210 - 3400
Class 18 (Post-TNG)…18 x Size………...3410 - 3600
Class 19 (Post-TNG)…19 x Size………...3610 - 3800
Class 20 (Post-TNG)…20 x Size………...3810 - 4000

Distortion Amplifiers…………….SU…………..Threshold
Class Kappa (Post-TNG)………..5.5 x Size…….460 – 500
Class Lambda (Post-TNG)………6 x Size………510 – 550
Class Mu (Post-TNG)…………..6.5 x Size…….560 – 600
Class Xi (Post-TNG)...................7 x Size………610 – 650
Class Omicron (Post-TNG)……..7.5 x Size…….660 – 700
Class Pi (Post-TNG)……………..8 x Size……….710 – 750
Class Rho (Post-TNG)…………..8.5 x Size……..760 – 800
Class Sigma (Post-TNG)………..9 x Size……….810 – 850
Class Tau (Post-TNG)…………..9.5 x Size…..…860 – 900
Class Upsilon (Post-TNG)………10 x Size………910 – 950
Class Phi (Post-TNG)…………...10.5 x Size…….960 – 1000
Class Chi (Post-TNG)…………...11 x Size………1010 – 1050
Class Psi (Post-TNG)…………...11.5 x Size…….1060 – 1100

Class Omega (Post-TNG)………12 x Size………1110 - 1150
Class Omega-X (Post-TNG)……12.5 x Size…….1160 - 1200
Class Omega-XX (Post-TNG)….13 x Size………1210 - 1250
Class Omega-XXX (Post-TNG)….13.5 x Size……1250 - 1300
Class Omega-XXXX (Post-TNG)….14 x Size……1310 - 1350

Auto-destruct system works the same but it can be contained to the vessel only as it disinergrates the ship down to the subatomic level leaving little to no traces.

Auxilary Spacecraft systems work the same as the they are.

Babylon 5 Tech

Below is some of the technologies designed to generate vessels for the Babylon 5 Universe to use in the Star Trek Spacedock format. The ships require only slight changes here and there to generate Spacedock Type Vessels from Babylon 5 vessels.

Hyperspace Jump engine

SU's cost: 10 time the size of the ship
Power cost: 10 times the size of the ship

Opens an entry into another region of space known as hyperspace (or a version of subspace). Opening a jump point takes one round and one round to enter, usually lasts another two rounds after the vessels have passed into the void beyond.

Traveling in hyperspace a vessel travels at Sub-light speed but in real space they would be traveling faster-than-light. (*A vessel traveling at .5 Sub-light would be traveling equal to warp five in normal space.*)

The opening is over 1 kilometer in diameter and more than three in length allowing more than one ship to pass through the opening.

A vessel traveling hyperspace cannot be detected by a vessel in normal space or vice versa.

A jump opening has a resistance of 300 to all weapons unless the weapons have a specific modulation. Modulating the weapons has a difficulty of 13 and takes three rounds to perform the adjustment. Any ship caught in the opening when the opening collapses is destroyed instantly.

(*Crossover notes: A modulated spread of Photon Torpedoes can disturb the normal stability of an open jump point collapsing the opening.*)

Bio-adaptive/Dispersive Armor

SU's Cost: Requires the purchase of Ablative armor and doubles the SU's that are generated by the ships armor.
Power cost: no power requires.

The first hit to the bio-adaptive/dispersive armor receives 100% of the weapons impact allowing the armor to learn what the weapon can do and is composed of. The successive hits to the Bio-adaptive/dispersive armor reflect 60% of incoming fire away preventing damage to the ship. The bio-adaptive/dispersive armor increases to armors resistance up 15 for the standard ablative armor. Once the ablative armor has been burned off the Bio-adaptive/dispersive armor has been burned away.

Bio-adaptive/dispersive armor is a creation generated out of the Minbari/Vorlon alliance against the Shadows. First fitted to the White Star fleet and then installed on the Victory-class Destroyers for the Interstellar Alliance.

Beam weapons

Beam weapons are based off the Phaser scale and conversion from Mongoose Publications revised ships. The base line is the Earth Force Omega class Destroyer equal to a 23rd Century Star Trek Miranda-class Cruiser in weapons destructive fire. All weapons yields are generated from that adjusting with each weapon.

The restriction for the weapons in the Mongoose publications for Babylon 5 is still the same in the converted ships as well.

Dispersive Armor

Taken from a Star Trek Enterprise fourth season episode "augments." Doctor Soong says something about the Klingon Bird of Prey having Dispersive Armor.

Dispersive Armor, an early Klingon version of ablative Armor, like ablative armor it disperses a substantial amount of Directed energy weapons fire when conventional shielding is not available. Due to the unreliability of shields the dispersive armor was installed on many vessels to protect the ship.

Some older Klingon vessels still have Dispersive Armor installed and as well some ship commanders may also have some of this armor installed on newer vessels as a secondary defensive shield

Type I - Dispersive Armor dispels 60% of directed energy, up to 100 damage with a cost of 3 x size in SU's. Circa mid 22nd century.

Type II - Dispersive Armor dispels 70% of directed energy, up to 150 damage with a cost of 4 x size in SU's. Circa late 22nd to early 23rd century.

Type III – Dispersive Armor dispels 80% of directed energy, up to 200 damage with cost of 5 x size in SU's. Circa mid 23rd century to mid 24th Century.

Type IV – Dispersive Armor dispels 90% of directed energy, and up to 400 damage with a cost of 6 x size in SU's. Circa 24th century on.

Type V – Dispersive Armor dispels 95% of directed energy, and up to 600 damage with a cost of 8 x size in SU's. Circa 25th century on.

STARSHIP ARMOR

SU cost: see chart or 4 SU's x every 10 point of resistance. With a maximum of 1200 resistance.
Power cost: none.
Financial Cost: 10 bars of Latinum per 25 points of resistance times the size of the ship that the armor is being installed on.

Here is a piece of tech that could be useful in a starship. The armor is plated over the hull of the standard hull acting as a resistance against the incoming weapons fire of a weapon. Once damaged the armor is gone until replaced. This armor is plated onto the hull it has a resistance heavier than the hull and it's resistance. This armor is not compatible with the Ablative Armor one or the other. The armor acts as the resistance does in the shields. The Armor can take a hit but does not lose and resistance from the attack so the next hit as much resistance as before. Once the armor is penetrated the armor is gone from that spot till the armor is replaced in a Spacedock repair.

This armor is only a supplement to the shields not a complete replacement of the shields. However the armor does not hamper the shields deployment. Some species that have not generated the ability to produce a shields would have a mild version of the shields.

Note: the early Earth Starfleet circa mid 22nd century used Polarized Hull Plating that is generated like shields with no shield grids. They have resistance burning off with each hit from an attacking weapon.

Optional rule: The armor can only be attached to a hull with no less than 6 for outer hull resistance. With less the vessel may not be able to travel at warp speed without losing its outer hull from the stress of travel. A success roll for traveling must be made. Every round of travel at warp and the higher the warp the more difficult the success.

Additional armor resistance

SU Cost: 2 x size + 5 SU's per every ten of resistance.
Power cost: None

This was born out of the need to shield the ships when in combat. This is an actual damage reduction to the weapons to decrease the damage inflicted to the ship.

BIOLOGICAL SHIPS

SU's Cost: 100 x size
Power cost: None

The Vorlon and Shadow vessels are biological starships that are capable of independent living and decisions. As per the Babylon 5 Ship Builder's Manual and Ships of the Galaxy I used the method in the shadow and Vorlon ships. When attacking the vessels half the inflicted damage goes to the Biomass with the exception

of damage to armor. When the Biomass is go the ship is no longer a living entity.

Where as for Shadow and Vorlon technology, the material is generated with a predetermined designs and structures of the ship allowing the growth of the weapons and all other systems. Using the materials to grow the ship in a living vessel. The ships will grows at a rate of one to two SU's per day as long as materials are supplied to sustain the growth. A Shadow Cruiser would take three to six years to create a ship. This creation methods allow for fleets of ships grown in secret and await the moment to be called to duty. The genetic materials are placed deep under the surface of planet's surface and allowed to grow naturally.

Final Note: In generating these vessels for Babylon five some liberties were taken in the design but I attempted to stay true to their concepts. I think the vessels work well in the Spacedock format even though there are some with weapons that are far too heavy for battle in the Star Trek realm.

Bio-Alloy (Shadow and Vorlon)

Bio-Alloy is a material that is grown and it tougher than the standard hull of a starship hull. A Bio-Alloy cost 2 x size in SU's of space and gives an automatic bonus of +2 Resistance to the outer hull of a ship. Few species have mastered the art of growing a starship hull around the premade starship hull.

A Bio-Alloy hull is far more difficult to scan through a difficulty of plus two to a scan. Thought the biggest disadvantage is that the hull requires a minor circulatory system and will re-grow damaged portions of the hull as strong as before. Any Bio-Alloy can regenerate 10% of its total damage ever day. If the power system is damaged, this cannot occur, however. When applied to the hull of a conventionally constructed starship, whether on the inside or outside it grows into the existing metal and makes it stronger. This works even better for the older ships that have begun to show weakness or previous damage. (With the use of these growths the inner and outer hulls must be generated as well.)

Whit the construction of a crossover vessel with augmented Shadow technology the bio-alloy had the tendency to grow the long spires. This material can be applied to the hull of any ship and allowed to grow creating a vessel that had properties of both.

Vorlon Planet Killer Weapon

The Vorlon Planet Killer Weapon is a specialized weapon that is capable of destroying a planet in a single shot from the primary weapon. The ship stores up the power and discharges it in a single shot over two rounds. Any vessel caught in the weapons discharge is destroyed instantly. The weapon takes one full day to charge before it can fire again striking another planet. The only

seen version of the Planet Killer required a recharging of 3000 power per round for the 24 hour period. (Damage would be 518,400,000 and a planet would have a structural units a thousand times that (518,400,000,000 SU), but the resulting destabilizing attack would cause the planet to explode.) Anything that is caught in the same MU that the planet is in is destroyed is also destroyed if it does not leave fast.

Only ships size fourteen or larger with sufficient power can carry such a weapon and requires one quarter of the ships SU's for the weapon.

Auto repair (Self-Repair) Systems (Babylon 5)
SU's Cost: Size x 2
Power Cost: Size x 3

The Auto repair repairs small damage not the significant weapons damage hull breaches or entire missing sections of the ship. Most is rewiring the internal systems making the system functional. Damage cannot be more than one quarter of the systems overall SU's. It takes one round per SU of damage to make a system operation during this kind of repairs. Systems like this are usually used on fighters and small ships more than a larger vessels with large crews as this is more a stop gap measure than a full repair. The system when functional is a reliable life savor.

Note: This system is different than the Systems Commonwealth's Self-repair that will restore the entire damaged system to the former High Guard Standards.

Gene Roddenberry's Andromeda
Spacedock Tech Notes
All Systems Commonwealth Technology

SPACEDOCK

The Spacedock notes on constructing the Andromeda vessels. Some of the Tech was generated by me or converted from other sources of information to create. Most is from the series or the novels. Much of the Andromeda was generated out of the post on RPGGamer.com

SU usage

When I first drew up the Andromeda I looked at many of the stats that are available on the internet and then I looked to the DVD sets. Then I took notes from episode to episode about the ship before I even started to generate a ship. The first ship I generated was more than the designated SU's for the ships. After that I cut everything back to fit the SU's and soon realized in testing that the Andromeda could layout the fire but the tech could not adequately defend the ship from incoming fire. So to generate the shields and other defenses and make the ship capable of defending the ship against the attack. Sense the High Guard ships exceed the SU's in such a way that the ship needed to exceed SU's. I generated the rule for the Systems Commonwealth and others, it is that no ship in the fleet can exceed more than thirty percent of the highest SU's for the ships size.

Specialized hulls

The Majority of the High Guard ship are atmospheric capable and a few are planetfall capable. This generates vessels that can not only fight in space but support planetary operations.

Ship Wide Integral Holographic Coverage

SU cost: to decide, I thought initially 10 SU + size, an additional 5 SU a "long term" hologram similar
Power cost: 2 x size

In effect, this allows your ship's EMH to go pretty much where it wishes to, unless you cut off the hologrid in your room, which I would do if I had a nosy hologram with complete freedom of movement on my ship. It also allows to create bigger simulations, install ship wide holographic personnel, although Starfleet tends to frown on this practice, (they prefer to send EMH I to do this).

Not much in term of game effects, except you can always try to do the Picard trick in ST: FC if you're caught weaponless in while being boarded, or add it to external hologrid coverage to simulate the internal rooms, like USS Incursion.

Self-Repair Systems

SU's Cost: Size x 4
Power Cost: Size x 6

The commonwealth has created a series of androids and automatically programmed nanobots that repair the All Systems Commonwealth High Guard ships. Damage repair for 1 Su takes 3d6 x damage modifier (see chart) gives the amount of time to repair in minutes the ship. An example would be 20 SU's of damage would take over seven hours to make repairs to the ship. The more damage the longer it takes. Over a thousand would take the nanobots to repairs would take almost a year but repairs to the slipstream drive to travel to the local repair yard to make extended repairs. This is available on ships larger than size four. The more damage the longer the repairs but more than a third of the ships SU's in damage it take a ship yards to repair if the ship can return to such a facility.

Self-repair systems are use by Commonwealth, Magog and Pyrian ships.

Damage modifier…digits…difficulty

Single digits …5…...+2 (the repairs are automatic.)
Double digits…10…+5 (the repairs are automatic.)
Triple digits…100...+10 (requires assistant and direction by the ship's crew)
Quadruple digits...1000… Requires a ship yard facility

AI Processor

Su's Cost: size x 1
Power: size x 1

The Artificial Intelligence systems on the ships have to have the specialized processor that requires at least a computer uprating of Class Alpha and two or more Computer cores. The AI's are the crew's liaison with the ships computers and the sensor information that is processed by the AI's analytical processors. This allows

the AI to provide the crew with them most pertinent information that they need in real time.

The ships AI is inherently loyal to the ship's captain and the crew above all the All Systems Commonwealth. An AI has its own personality that is its own. Most of the AI chooses their own appearance and that could be what ever the AI decides it to be.

AG Generators
SU's Cost size 2.5 x size
Power Cost: 1 x size

Anti-gravity systems pulling the weight up to a lighter allowing it to lift the ship from the surface of a planet with the thrusters only. This simply turns the several million metric tons starship into a feather weight. Alone an AG generator can move an object at 1 meter per second but in combination with thrusters or impulse engines increases speeds by .1c of speed. The AG allows the ship to leave the planet's surface with thrusters only. The AG fields may fail and the ship can go crashing back to the ground but this is not a usual happening as most ships that have an AG field has more than one AG emitter to reduce the ships weight but are all under the same cost. A rule of thumb is that the ship has an equal number of generators to the ships size.

Machine Shops
SU's cost: Size x 2 for each large machine ship (up to the size of the ship.)
Power cost: size x 1 power round of use. (No matter how many shops)

The Systems Commonwealth had the most efficient automated machine shops for the high guard warships. The machine shops are capable of manufacturing any and all the weapons for the ship. The construction of the materials for the machine shops are collected from the rubble found in an asteroid field. A missile takes hours to produce but the assembly line production allows the production of several missiles. The High guard ships can manufacture enough missiles to replenish its stores within a few days. Nova bomb takes more than a few weeks to make a new weapon.

The amount of material needed is one hundred cubic meters enough to manufacture the entire missile compliment and smart bullets.

The number of missiles and compliment of missiles are generated by the ships AI or at the ships Captains request if he sees that there may need another missile that may be needed.

The safety protocols in the production of the weapons prevent the miss explosion of the materials during the process of manufacturing of the materials into the missiles. During combat the manufacturing is shut down as it can be distracting to the ships AI during

manufacturing. A weapon's impact to the machine shop could detonate the weapons on a rare chance.

High Tension Armor
High Tension Armor is just heavy resistance plating on the exterior of the ship's hull. The resistance is the same as the construction of the hull of the starship for the Outer and Inner hull resistance.

Ablative/Reactive Armor
Ablative Armor and Reactive Armor are similar but different in their use. Ablative armor burns off and is gone and reactive armor is counter to the incoming weapons sometimes explosive in nature. For game play the armor is combined into the Ablative Armor and increased to by time ten.

Battle Blades
Battle Blades are deployable defensive systems constructed out of super strong metals that are resistant to the incoming weapons fire. The blades are capable of sustain damage from multiple impacts of powerful weapons. The Battle blades require size x 2 power to operate and take time to deploy, over 2 rounds. The blades have a resistance of a 1000. The difficulty for the ships that are targeting the more sensitive areas of the ship must make a difficulty check against hitting the battle blade of 12 plus 1 penalty for every MU of distance from the ship. The SU's cost is 200 for the resistance and 2 x size to account for the mechanics to deploy the blades and the attraction mechanis.

The secret of the Systems Commonwealth's Battle Blades are that they produce an attraction to draw the incoming fire into them. The attraction happens when the incoming fire has slowed from a longer distance travel. There are two to four spread out between the out runner struts. The ship can enter into slip stream while the battle blades are deployed.

Plasma Armor
The armor is like an EM shield and is generated like standard shields and they works the same.

Autochef (version of the Food Replicators)
Power cost: Size x1
SU's Cost: Size x1

The All Systems Commonwealth is much like the United Federation of Planet's food replicators. The foods menu is slightly different and has a few draw backs to their operations. Where a replicator is capable following the directions of the operators request to generate a new

dish the Autochef is only capable of recreating the same dishes that are already programmed into the system with only a few minor changes such as hot or cold, rare, medium, or well done.

Botanical Gardens
Power Cost: 1 power x size in SU's of the gardens on a ship.
SU's Cost: 1 SU x (size divided by 3)

The botanical guardians abord the High Guard vessels are a wounder. They are larger than normal chambers that have many plants and some of the most rare in the tri-galaxies.

A ship like the glorious heritage class has 4 SU's of gardens requiring 4 power per round. The gardens are well protected sections of the ship. They are a emergency shelters within the ship.

Quantum Slipstream Drive
SU Cost: 80
Power Cost: 120 Power per round

Quantum slipstream drive (QSD), is faster than light this version travels a web of subspace tunnels or web polymers that connect the systems and galaxies. The travel between systems is only a matter of seconds. The nearest planet takes only a round to travel the distance and a sector four rounds and longer distances take longer time in slipstream. Short hops lasting no more than one or more minutes are usual for ships traveling the slip stream. Longer travels in Quantum slipstream stress out the pilots.

Difficulty in traveling the slip stream is a matter of the piloting skill. It is not often that the pilot makes a wrong choice in the slip stream and arrives at the wrong destination. A pilot can usually maneuver through slipstream without stress for an hour but with every additional ten minutes of traveling slip stream the difficulty rises by one starting at one. Once the pilot fails the ship normally arrives at another destination other than the intended destination. It is the rare occasions that the ship arrives somewhere they are not intended and it is hazardous to the ships survival.

There are a few spices that are not capable of navigating slip stream other than Androids and Celestial Avatars. The species like the Celestial Avatars have the skill but they do not have the luck and there have been experiences where ships have arrived in very wrong places such as a different time period.

Chance Arrival
2d6……location
2………Enemy territory
3………Outer edge of a black hole
4………Just another star system
5………toxic hazardous are of space
6………Just another star system
7………The middle of nowhere
8………Just another star system
9………Middle of a nebula
10…….Just another star system
11…….Just another star system
12…….Magog infested system

While traveling in slip stream longer than a round the pilot must make a skill check at each round. If there is a failure the use the above chart to designate the arrival point the ship exits.

The average speed the ships travel 50 light-years per round and 25 times faster between galaxies as the slip routes are strait and not winding around the individual star systems.

Solar Plasma Collection and Storage

Ram Scoop Plasma Collector
SU's Cost: 2 x size
Power: .5 x size per round of use
The Ram Scoop Solar Plasma Collector collects super heated solar plasma from the upper corona of a star and stores the charged particles as fuel for the ships reactors. The Ram Scoop Collector uses technology much like the tractor beams of a starship to collect the solar plasma for the ship but with high efficiency. The Scoop can collect enough solar plasma to fill the ships fuel tanks 1/2 SU per round (see: Solar Fuel storage tanks).

All dangerous materials that the stars eject into the upper corona are filtered out by the ships Ram Scoop Plasma Collector.

Solar Plasma Fuel Tank
SU's Cost: 1 x size
Power: None
The Ram Scoop Solar Plasma Collector feeds directly into the ships Solar Plasma Fuel Tanks directly. The tanks are super insulated against the heat of the charged plasma from the upper corona. Most tanks for ships size 3 holds six months or better worth of fuel smaller ships hold at most a months worth. The tank can have additional storage of three months worth per +2 SU's of space.

Rule of thumb the ship hold around 60 to 75 percent of the fuel needed to power the ship steadily for the duration of the ships time. To figure the amount of fuel it figures 12 rounds times 60 minutes x 24 hour x length of time a ships fuel supply for the Andromeda it would be 1,835,136,000 rounded up to 1,840,000,000. Yet the Andromeda will use only 234 power per round out just cruising around doing nothing special and that same fuel will last 455 days.

Solar Plasma Conversion Reactors

SU's Cost: see warp core charts
Power: None
The Solar Plasma Conversion Reactors change a portion of the charge particles and operate much the same as a standard Warp core.

Ammo Storage

The missile storage for the Andromeda is the same as Photon Torpedoes and smart bullets are 1000 per SU.

Missiles

The Missiles of the era is different than the Star Trek world as they have their own targeting system and the launcher only are par of the programming of the missile. Although the High Guard Missiles are the most powerful in the known worlds they are the only one's to use them.

HIGH GUARD STANDARDS MISSILE NOTES

Offensive Kinetic Kill Missiles (anti-ship)
Range: 10/300,000/1,000,000/3,000,000
Accuracy: 3/4/6/9
Damage 200

Defensive Kinetic Kill Missiles (anti-ship)
Range: 5/150,000/500,000/1,500,000
Accuracy: 3/4/6/9
Damage 200

Smart anti-ship Missiles
Range: 10/300,000/1,000,000/3,000,000
Accuracy: 3/4/6/9
Damage 160

Strategic Smart Anti-ship Missiles
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10
Damage 160

Strategic Multiple Warhead Kinetic Missiles
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10
Damage 180

Surface Attack Missiles
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10

Damage 160

Nova Bomb

Range: 10/300,000/1,000,000/3,000,000
Accuracy: 3/4/6/9
Damage: see note

Nova bombs are the single most powerful weapon in the Commonwealth arsenal. A single Nova bomb into the sun can easily devastate an entire star system. The damage is devastating to any starship with in the sector. This is the ultimate kill weapon of mass destruction.

NIETZSCHEAN STANDARD MISSILES

Offensive Kinetic Kill Missiles (anti-ship)
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10
Damage 180

Defensive Kinetic Kill Missiles (anti-ship)
Range: 5/15,000/50,000/150,000
Accuracy: 4/5/7/10
Damage 180

Smart anti-ship Missiles
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10
Damage 140

Strategic Smart Anti-ship Missiles
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10
Damage 140

Strategic Multiple Warhead Kinetic Missiles
Range: 10/30,000/100,000/300,000
Accuracy: 4/5/7/10
Damage 140

Battlestar
Galactica
Technology

The fleet of ships Colonial and Cylon are constructed like any other ship in Spacedock vessel with the exception of the few vessels that are. The tech listed below is the changes to that of the fleet. There are drawbacks to the fleet of ships. The Battlestars are armed and heavily shielded against conventional and nuclear weapons in a fight.

Manufacturing
Large Machine Shops
SU's Cost: 3 per large shops
Power: 2 power/round

Ships of the colonial fleet use a series of machine shop to generate equipment and tool that the Colonial Battlestar's need to maintain the ship. These shops can manufacture one combat ready viper in three months form minerals and metals gathered from an asteroid fields. These are processing plants. These large Machine shops are capable of building a new fighter is there is a design engineer present with the plans to make the fighter or craft.

Small Shops
SU's Cost: 1 x size
Power: 1 x size

Colonial ships need small items such as Ammunition and parts for the fighter and even uniforms for the crew. Most of the Battlestars have their small shops geared to the production of the replacement of parts for the fighters and make repairs to the ships. On newer Battlestars there is a production shop generating ammo for the ship and fighters. The older Battlestars the shops are used to create replacement parts for the fighters and the Battlestars.

Fusion Reactors
For a rule of thumb, I used this formula for the fusion reactors for power that generates 2 power per 1 SU of cost. Most ships have a reactor to power the ships systems in the event. All ships require power to operate the electronic equipments on the Colonial and Cylon vessels.

The fusion reactors are heavily protected parts of the ship and usually located in a section near the starships sublight engines. The reactors use the same fuel as the engines.

Rail gun technology
Rail gun's use electromagnetic coils to fire the devastating projectile through the vacuum of space. Each rail gun cost 1 SU per 10 damage and 1 power to fire the weapons. Each gun is independently operated. Most of the Rail guns are on rotational turret mount and can swivel around to fire any desired direction from where the Battle star turns. The guns cover a large area of defense. Even though the larger guns are slower loading they pack a punch against the target. The largest guns on the Battlestar Pegasus are fix mounted and can only fire in a forward direction. The Mercury-class has been a mainstay of designs in the fleet to replace the ageing first Cylon war Battlestars that are being taken out of service.

The small caliber rail guns can fire rapid fire and spew out a damage to defend the Battlestars. The larger guns have a slower reloading and can fire on a couple of shot in a round. The largest round available is a single shot of round and can cause devastating damage to a ship.

Fire control
A Battlestar fires its guns individually or all together in a salvo at a single targeted point in an attack. A salvo does at least as much damage as the Battlestar's guns alone. The damage can cause substantial damage to a targeted point on a target with all the weapons targeting the single targeted point of the target. The Battlestar's CIC (bridge) calls the targeted points for the large guns.

The Close-in-weapons (point-defense-weapons) generate a haze of fire that destroys a majority of the incoming weapons fire and ships that are not colonial or apart of the ship. The haze of flak causes Two SU's of damage per round within the spray of flack.

Every gun has its own gunner and operator-taking orders for the guns control room and the CIC. Each gun can be targeting a different part of the enemy ship with the orders of the commanding officer. This coordination of fire control is a tool in the chain in command of the Battlestars although the gunners can choose a good target if there is no other orders to target another target.

Bio-Alloy (Cylon)

Bio-Alloy is a material that is grown and it tougher than the standard hull of a starship hull. A Bio-Alloy cost 2 x size in SU's of space and gives an automatic bonus of +2 Resistances to the outer hull of a ship. Few species have mastered the art of growing a starship hull around or inside the premade starship hull.

It takes three days for the Bio-alloy to strengthen the hull of the ship. The ship is out of commission during the bio-alloy to repair the ships.

A Bio-Alloy hull is far more difficult to scan through a difficulty of plus two to a scan. Thought the biggest disadvantage is that the hull requires a minor circulatory system and will re-grow damaged portions of the hull as strong as before. Any Bio-Alloy can regenerate 10% of its total damage ever day. If the power system is damaged, this cannot occur, however. When applied to the hull of a conventionally constructed starship, whether on the inside or outside it grows into the existing metal and makes it stronger. This works even better for the older ships that have begun to show weakness or previous damage. (With the use of these growths, the inner and outer hulls must be generated as well.)

Note: this is the material that the crew of the Galactica use to fix the damage to the forty-year-old warship. The bio-alloy is similar to that the skin of the Shadow and Vorlon vessels in the Babylon 5.

Faster Than Light Drive (Coaxial Warp Drive Variant)

SU Cost: size x 20
Power cost: size x 10 power/jump

FTL drives are capable of folding space and sling shooting the ship from one location and arriving at another location. An FTL jump takes one round of play. For every five minutes of calculating the FTL jump provides plus one bonus. Difficulty starts at 20 for a blind jump.

The longest jump for the FTL drive is 50 light-years maximum for the colonial with any accuracy and triples that for the Cylon FTL.

The FTL takes thirty minutes to calculate the jump without the use of an FTL computer. A computer takes half that and a computer can make the calculations, while the networked computers can make the calculations in a few minutes.

Normally takes size x 2 rounds to spin up the FTL for a jump and half that for a military ship. The Jump engine spools up to the jump, takes a round to initiate the jump, and then exits the jump on the next round.

Blind FTL Jumps

The ship has the chance of jumping into a place where it should not. They could jump into a place where the ship can be damaged or destroyed from jumping into the wrong place. The blind jump has an automatic difficulty of 12 for failure. On a failure, use the table below to generate danger of the blind jump. The many dangers of a blind jump are beyond comprehension but I have listed many of them below. As seen in one episode a raptor exits FTL close to a planet and another inside of a mountain.

Jump Failure (2d6)

2......Star's corona
3.......Inside an asteroid belt
4......Inside the atmosphere of a gas giant (1d6: 1-3 high atmosphere, 4-6 too low crush depth)
5......Deep within a Nebula Cloud
6......Black Hole.
7......Too far from the core of the galaxy.
8......Inside of the rings of a planet.
9......A Forming Star System. (1d6: cool, 2 warm, 3 hot, 4 molten, 5 infernal, 6 vaporizing heat.)
10....middle of the enemy territory.
11....Jump into another ship.
12....Far, far away…

A wrong jump usually happens when the jump is not calculated in the process of jumping. Blind jumps are dangerous.

FTL Nav Computer

The Nav Computers are larger than that of the standard computers of a Battlestar that they use much more of the sensor tech than that standard computer does. This leaves much of the computer susceptible to the Cylon viruses with the CNP installed into the computer. The Cylon war era computer takes thirty minutes to calculate an average jump. A standard Jump calculation is at an average of a few light-years in distance. During the second attack on the colonies, the rag tag fleet jumped distances that were at extreme ranges.

Colonial FTL Nav Computer (Civilian type) (+0): (SU cost .75 x size) [1 power/round] (40 minutes) {20 light-years}
Colonial FTL Nav Computer (Galactica type): (SU cost 1 x size) [2 power/round] (30 minutes) {30 light-years}
Colonial FTL Nav Computer (Pegasus type): (SU cost 1.5 x size) [3 power/round] (20 minutes) {45 light-years}
Cylon Navigation Computer: (SU cost 2 x size) [4 power/round] (15 minutes) {60 light-years}

Flight Pods

SU's cost: none
Power cost: 1 per round of retraction or deployment of the flight pods.

On the older Battlestar's the flight pods are deployed and retracted take the number of rounds equal to the size of the ship. The pods can be retracted while the Battlestar is spooling up its FTL or at the last minute.

Even the older Battlestar's can jump with the pods extended but the ship takes 3d6 damage to the hull of the ship split between both the inner and outer hulls. This damage increases one more point with each jump till the ship puts into a dry-dock facility where it can to make extensive repairs.

Ship Hits

With each hit to the ship that has the armor, the ship splits the damage with the armor and the targeted part of the ship. The split is divided 30% to the system and 70% to the armor until the armor is gone.

Any damage to the guns disables the turrets. With the gun disabled, the ship is left vulnerable to weapons hits in that area. Without the armor the ships are completely vulnerable form the attacks.

Armor

Generated like Ablative Armor. With the resistance doubled. If a weaker Battlestar is needed the armor is cut in half. Each shot that a Battlestar takes is subtracted from the armor until the armor is gone. Only a shipyard can replace the missing armor for each point of armor that is replaced takes a couple of hours not including the repairs to the space frame of the ship.

Nuclear Missiles

The nuclear Missiles are capable much more damage if they are detonated inside of the body of a ship. A Nuclear weapons or slang name of Nuke is more flash than damage and a Nuke dose five times the damage if it is on the inside of the hull.

The Colonial fleet has three types of nuclear missiles that are available to use. During the first Cylon war, the Mark I and II's are available to the fleet of the Battlestars. The Colonial fleet was able to produce the Mark III's at the end of the war but never fielded the weapon.

Nuclear Missiles Mark I (120 damage)
Nuclear Missiles Mark II (140 damage)
Nuclear Missiles Mark III (160 damage)

The Cylon's uses the same type of weapons to attack ships with. The only difference comes when the missiles are launched against a planet. The Cylons have a multiple warhead planetary Nuclear weapon. Each missile carries twelve Mark I warheads that can be fired in on a city and at a certain altitude separate and detonate on a cities surface causing substantial damage.

(Optional rule)
Close-in-Weapons/Flack Guns
Even thought the Battlestars are heavily armored Battlewagons the missile fire at the ship or the scraping run by a fighter must pass through the anti-fighter screen of explosive flack fire by hundreds of small rail guns. The moment the fighter enters the flak barrier the fighter is at risk of taking 10 damage. The fighter or whoever fired the missile must make a difficulty challenge to pass through the flak of 13.

The dissension guns produce fire of 5 shots per round costing 1 power per round for each gun fired. This produces a defensive perimeter of just over one kilometer range. There are the transverse pathways through the flak to the flight pods that are normally flak free. However, there are times when the increased fire is called for to prevent enemy ships from landing on the Battlestar. The Damage sustained to a craft caught in the flak cloud could eventually cause severe damage to the fighter killing the pilot in the armored cockpit.

Sub-Light Engines

The Colonial speeds are not even close to that of the Star Trek speeds of half the speed of the light. The Colonial Battlestar Galactica in the Core book moves at 5 and it equals to speed of .10c in other words an exceedingly fast 30000 kilometers per second. The SU cost is 1 SU per every .02c of speed. Generating 5 power per 1 of speed from the core books. The Engines require 1 power per .01c of movement.

(Notes: I found over on Campbell Blacks page where he figured out the speed from the book for the Galactica as .10c. I used the same calculations to regenerate the speeds of the fleet of ships. Below, I have worked out the speeds for all the ships listed in the fleet. Assuming that the Galactica is traveling to a neighboring planet in the same stellar orbital system it would take 1.6 to 4 hours at full burn. Being the ship is not in a rush would be traveling half speed and time would be 3.1 to 7.75 hours. If you need to be there faster, you always have the FTL Jump engines.)

Travel time for one AU (or SU)
.01c = 3000 kps = 13.9 hours
.02c = 6000 kps = 6.9 hours
.03c = 9000 kps = 4.6 hours
.04c = 12,000 kps = 3.5 hours
.05c = 15,000 kps = 2.7 hours
.06c = 18,000 kps = 2.3 hours
.07c = 21,000 kps = 2 hours
.08c = 24,000 kps = 1.7 hours
.09c = 27,000 kps = 1.5 hours
.10c = 30,000 kps = 1.4 hours (1 Mu of movement per rd)
.11c = 33,000 kps = 1.26 hours
.12c = 36,000 kps = 69 minutes
.13c = 39,000 kps = 64 minutes
.14c = 42,000 kps = 59 minutes
.15c = 45,000 kps = 55 minutes
.16c = 48,000 kps = 52 minutes
.17c = 51,000 kps = 49 minutes
.18c = 54,000 kps = 46 minutes

.19c = 57,000 kps = 43 minutes
.20c = 60,000 kps = 41.7 minutes (2 MU's of movement per round)

The number of Battlestars is somewhere around 120 ships. It is stated that 30 Battlestars lost in the opening attack is a quarter of the colonial fleet. So if we look at a US Navy carrier battle group has an Aircraft carrier, 2 cruiser, 2 to 4 destroyers and 1 or 2 submarines this is not including support ships so if there are five additional ships per Battlestar there would easily be over 720 ships in the colonial fleet. I figure with cargo ships such as bulk freighter, fuel carriers, ammunition ships, maintenance ship's and whatever else I am missing in thinking up there could be 1200 to 1500 ships in the colonial fleet.

The Cylon Fleet would easily be the same size or even larger than that of the colonial fleet. I like to think that the Cylons fleet would be several times the size of the Colonial Fleet.

Fuel points and tanks

For each fuel point generates 100 power in the power reactors till that fuel is burned off. The ship will have thousands of points of fuel to use. The tanks are capable of sustaining military ships for years or longer depending on the ship while the civilian ships carry enough fuel to carry the ship from point to point to point for days.

As an example the auxiliary Reactor generates 5 power per round and to burn the fuel point would take 20 rounds before needing more. The larger the reactor the more power they need to use.

The transfer of fuel is 100 points per round to the ships that are being refueled. The fuel being transferred to the ship is endangered in an accident of the transferred. Although the fuel transfer is a practiced operation there is the chance of an accident an accident happens once in a fuel transfer by failing to roll an eight or better. (optional accident rolling two dice and coming up with one on each dice "*snake eyes*"). A full refueling for the Battlestar Galactica would take over thirteen hours but usually there is only fifty percent fuel in the Battlestar at any given time.

The fuel tanks cost size regardless of the length of time. The civilian ships three to six months of fuel. The military fuel tanks are double armored (resistance is double) for the fighters and triple on the larger ships such as the Galactica itself (resistance is triple) for the tanks only.

If the tank is breached roll 2d6 x size to determine the fuel lost per round. If the tank explodes roll a difficulty of 17 to determine if the fuel explodes and if it does amount of fuel that is remaining does fuel x 100 damage in the explosion. If the tank is totally ruptured

and the damage is destroyed the fuel automatically explodes at half of the determined above.

Note: the Battlestar Galactica is the missing plate armor and has exposed ribbing. To discern whether or not that there is armor covering the section of the ship were the weapons impacts see notes below.

Engines: the outer engines are armored the inner two engines have secondary systems protecting them.

Middle Hull: is partly armored on the spine and outer edge is not. Roll 3d6 to determine if there is armor on this area on even.

Flight Pods: the Flight pods have partial armor and have little effect to much such as ships movement and the landing deck results in little damage. (The starboard flight pod has no effect to landing capability when it is damaged by weapons fire with the exception of weapons fire.) Roll 3d6 to determine if there is armor on this area on even. Below is to be used with the STARSHIP HIT LOCATIONS TABE although there is no change to how to deal with damage to the ships Shuttlebays.

9   Shuttlebay *(aka The Flight Pods)* (1d6)
     1-2 Landing deck
     3-4 Launch bay (aka launch tubes)
     5-6 Hanger bay

Alligator Head: the head is partly armored. (Bridge, C-I-C a.k.a. "Command and control" is well protected with the consumables and crew quarters) Roll 3d6 to determine if there is armor on this area on even.

The Armor in Battlestar Galactica works a little different than the armor in the Star Trek. The Armor is only removed on the section where the hull has been hit. Only with multiple hits burn off a portion of the armor in that spot.

My additional notes not starships
SPACEDOCK NOTES

So I thought I would share with all of you as well. Here are some useful notes that we have used in the game. I generated most of these using FASA and Spacedock to generate up so reasons why some things were not done on such episodes of Star Trek: The Original Series, The Next Generation, the Movies, Deep Space Nine and Voyager (sorry to say Enterprise didn't do much in this area other than just look at them). These guide lines are reasoning why they just didn't blow away the asteroid or stellar fragment. Some of these items are pregenerated objects that have been used in our games or I had prepared for one game or another over the years. I have reused some of these with adjustments to them to make them different versions in the game. The most common asteroid encounter will be in an asteroid belt and relatively easy to maneuver around but where asteroids in route to a planet or dangers that needed to be adverted.

Asteroids at a Fast Glance
In generating up the asteroids I gave them the same SU's as a starship would have and assigned a resistance to the overall asteroid. If wanted the player or GM can roll to see what each Photon Torpedo or Phaser hit that impacts has for a resistance no more than 5 in nature. Scale is a one on die is zero and a six is five. (Resistance beyond five is a refined or artificially constructed asteroid and have the ability to absorb directed Energy weapons impact).

The asteroid may be mined with great ease at the edge of the asteroid field that can be transported to another planet and used to create a starship or planetary facility. The mining requires hundreds of personnel to mine the asteroids. A size 3 or 4 small asteroid would take days to cut up into a small enough load to haul away in an Antares-class cargo ship. A refinery would produce enough material for several shuttles equal to that of the asteroid in a couple of months. The manufactured materials will have been recombined with enough materials that would increase its resistance to a substantial level.

Information gathered by an average sensor scan of the asteroid. Anything else would stand out like a neon sign on the surface. This can be used also to check a weapons impact in battle if the shot missed the target. The lateral Sensor scans for the composition of an asteroids would requires a range of 500 kilometers to identify the materials inside of a specific asteroid. Such as the starship Pegasus was located.

To generate a composition roll three times on the chart below to get a composition of the asteroids. For an asteroids size roll three d6 dice and add together. As for larger multiply together or assign a size to them.

Generating resistance
1d6
1-2 ….....1
3….........2
4….........3
5….........4
6….........5

3d6…**Composition**
3…..Natural deposits such as an elements from a stellar fragment materials (resistance of over 250 up to 4000).
4…..Nickel iron composition with elements that are valuable as a resource with. (Automatic minus one to resistance)
5…...Heavy Metals. (Automatic plus two to resistance)
6…...Nickel iron composition with anomalies in the composites of materials. (Automatic plus one to resistance)
7…...Dilithium Crystal deposits. (Automatic minus two to resistance)
8…...Nickel iron composition.
9…...No useful materials. (Automatic minus two to resistance)
10.....other exotic materials. (Automatic plus one to resistance)
11.....Lithium Crystal deposits.
12.....Deuterium deposits.
13.....Nickel iron composition with dangerous contaminants.
14.....Nickel iron composition.
15.....Dilithium crystal deposit with dangerous contaminants making it risky to mine.
16.....Explosive gasses or Deuterium deposits held in the Asteroid in a sealed area. (The deposit is 1/3 of the asteroids total makeup up to 100 cubic meters equal to 100 damage per cubic meter when detonated by a weapon or nature). (Automatic minus three to resistance)
17.....Dilithium crystal deposit with dangerous contaminants.
18..... Nickel iron composition with trace elements that can be valuable.

The asteroids below are specifically generated for examples.

Tiny Asteroid (plentiful)
Size: 1 (equal to the size of a large car)
Length: 3.5, meters
Beam: 2.3 meters
Height: 1.9 meters

Mass: 1.5 metric tonnes
SU 212
Resistance: 1
Composition: Nickel iron composite with valuable trace elements that are useless in the amounts that are present.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. This rock has a natural radio emission that is emitted from the center of the asteroid and changes as it moves past other asteroids near its orbit.

Small Asteroid (Common)
Size: 2 (equal to the size of a small sailing ship)
Length: 40.5, meters
Beam: 9.3 meters
Height: 3.9 meters
Mass: 22 metric tonnes
SU 421
Resistance: 3
Composition: Nickel iron composite with valuable trace elements that are useless in the amounts that are present.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. There is several small sensor anomalies detected when the scan is made but they are not unusual. This rock has a natural radio emission that is emitted from the center of the asteroid and changes as it moves past other asteroids near its orbit.

Medium Small Asteroid (Common)
Size: 4
Length: 87.5, meters
Beam: 22.3 meters
Height: 18.9 meters
Mass: 122,695 metric tonnes
SU 931
Resistance: 3
Composition: Nickel iron composite with valuable trace elements that are useless in the amounts that are present.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. There is several small sensor anomalies detected when the scan is made but they are not unusual.

Medium Small Asteroid (Common)
Size: 8
Length: 687.5, meters
Beam: 522.3 meters
Height: 118.9 meters
Mass: 4,222,695 metric tonnes
SU 2931
Resistance: 3

Composition: Nickel iron composite with trace elements that are used in the construction of starships.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. There is several small sensor anomalies detected when the scan is made but they are not unusual. The asteroid has several small crevices that are barely large enough to hold a standard size 2 Shuttlecraft and on cavern that a Starfleet Runabout can be backed into.

Large Asteroid (Moderately Common)
Size: 16
Length: 5,687.5, meters
Beam: 2,522.3 meters
Height: 1,718.9 meters
Mass: 22,892,695 metric tonnes
SU 10,931
Resistance: 5
Composition: Nickel iron composite with trace elements that are used in the construction of starships. There is a natural vein of Neutronium running through the asteroid that has a higher resistance (250) rating than that of the rest of the asteroid.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. There is several small sensor anomalies detected when the scan is made but they are not unusual. The asteroid has several small crevices that are barely large enough to hold a standard size 2 Shuttlecraft and on cavern that a Starfleet Runabout can be backed into. There is a hollow inner section that a space dry dock can be constructed in allowing a size six starship to be worked on if someone needed.

Large Asteroid (or tiny moon/a few per solar system usually in orbit of gas giants)
Size: 78
Length: 67.5 Kilometers
Beam: 65 kilometers
Height: 20.3 meters
Mass: 208,900,000 metric tonnes
Gravity: .1 G
SU 196,000
Resistance: 5
Composition: Nickel iron composite with trace elements that are used in the construction of starships. There is a natural vein of Neutronium running through the asteroid that has a higher resistance (250) rating than that of the rest of the asteroid. The Asteroid has many minerals and other metals that make in valuable to certain mining corporation that are embroiled over the rights to mine the ore from the surface.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. There is several small sensor anomalies detected when the scan is made but they are not unusual. There is a

hollow inner section that a space dry dock can be constructed in allowing a size 8 starship to be worked on if someone needed or hide a ship in such as the Federation starship Pegasus.

Comets

A comet moving though a solar system is gravity propelled object moving at the speed that ship orbiting a planet 9600 kilometers per hour. The comet is designed much the same as an asteroid would be designed. A comet is a natural environmental space hazard. Passing through the comets tail that can be 1 Mu in length the ship is sensor blinded and the Cloaking device becomes useless as the comets ejected gasses will stick to the hull for two rounds.

If the asteroid or Comet fragment is on a course to impact the surface of a planet or a space station and the rock needs to be redirected or destroyed.

Rule: Any asteroid fragment smaller than size 1 is no longer a threat to a planet or shielded space station. That is if the shield is strong enough to sustain an impact to the shields. Shield threshold must be higher than that of the asteroids remaining mass. The Asteroid is broken into smaller than size one.

I generated multiple different charts but intended to combine into one. But here are the multiple charts for energy and missile weapons. One of the charts is a chart for Asteroids caught in combat.

Asteroids Caught in Combat

1…Weapon strikes shatters the asteroid into sensor obscuring dust.
2…Weapon strikes shatters Asteroid into multiple chunks, fleeing ship needs to check for collision.
3…Weapon strike reflected back to attacking vessel.
4…Weapons strikes are deflected off the Asteroid.
5…Weapons strikes are not affected to the Asteroids.
6…Weapons Strikes are exploded off the Asteroids.

Phaser/Disruptor/Energy Beams

1.... Asteroid shatters all unvaporized portions of the asteroid. (divide remaining section into three, if the pieces are smaller than size two they should burn up in the atmosphere if planet has atmosphere and shields should deal well enough for impact.) Roll danger chart.
2....Asteroid shatters into a dust and small pebble size rubble.
3....Asteroid is split in to two halves minus the vaporized section. Roll danger chart.
4....Asteroid begins burning and vaporizes into dust fragments.
5....Asteroids direction is changed and begins tumbling. Roll danger chart.

6....Asteroid vaporizes and remaining section stays whole. Roll danger chart.

Spatial/Photon/Quantum Torpedoes

1.... Asteroid shatters all unvaporized portions of the asteroid. (divide remaining section into three, if the pieces are smaller than size two they should burn up in the atmosphere if planet has atmosphere and shields should deal well enough for impact.) Roll danger chart.
2....Asteroid shatters into a dust and small pebble size rubble.
3....Asteroid is split in to two halves minus the vaporized section. Roll danger chart.
4....Asteroid begins burning and vaporizes into dust fragments.
5....Asteroids direction is changed and begins tumbling. Roll danger chart.
6....Asteroid vaporizes and remaining section stays whole.

Tractor Beam/Attachable Thruster Pods

1....Asteroid is unstable and begins to crumble into smaller fragments. Roll danger chart
2....Emissions from the asteroid prevents the tractor beam from securely holding it. Roll danger chart
3....Tractor beam crushes the asteroid if the asteroid resistance is lower than 2. Roll danger chart
4....Tractor beam fails to move the asteroids course. Roll danger chart
5....Emission cause damage to the tractor beam systems and others systems. Diagnostic checks on weapons and photon torpedoes may not shoe damage and difficulty to energy weapons are increased by three to failure of these systems.
6....Asteroid's course has been changed by the tractor beam and the asteroid holds together.

Danger chart

Roll 2d to see if still a hazard
1-3 objects is still a hazard,
4-6 objects are no longer a danger.

Stellar Fragment

Stellar Fragment is star material ejected from the surface of the star rather violently in an eruption or super nova event and sent on a trek through space some to cause major problems to planets starship and other space dwelling objects. The fragments are usually large and are radioactive for hundreds of thousands of years before the fragment is safe to approach.

A fragment that impacts the surface of a planet is a planet killer. The fragment will shatter the planet

destroying any life that is on the surface of the planet such an explosion see the above reference of planets.

A G type star the fragment temperature of 5000 degrees Kelvin will begin cooling at 1 degrees every day after the ejection from the star. It would take a over a half a year for the fragment to cool the hotter the fragment the longer it would take. The A shockwave drops one hundred after each round after the first minute. The speed of the fragment is determined by rolling 2d6 minus one dividing 20 will give the speed that the shockwave travels with a maximum speed of just over the speed of light.

Example: a stellar fargment ejected from the star is adrift. Rolling for speed the dice roll out at 5 + 3 = 8 and then the minus one and then calculates out at .35c. If the ship is capable the ship can move out of the way at impulse.

Small Stellar Fragment
Size: 4
Length: 80 meters
Beam: 20 meters
Height: 15 meters
Mass: 100,000 metric tonnes
Gravity: .1 g
Age: Freshly ejected from star.
SU 900
Resistance: 4000
Composition: the presence of Nuetronium and other exotically harden materials super heated from the surface of a star.
Notes: the stellar fragment is highly radioactive and is hot in the 3000 degrees Kelvin immediately after the ejection from the fragment is resistant to tractor beams. The materials are resistant to most directed energy weapons. The subject that is irradidiated by the stellar fragment is in need of medical assistance and anti-radiation medications.

Large Stellar Fragment
Size: 16
Length: 5,500, meters
Beam: 2,500 meters
Height: 1,700 meters
Mass: 22,000,000 metric tonnes
Gravity: 1.5 g
SU 10,000
Resistance: 6000
Composition: the presence of Nuetronium and other exotically harden materials super heated from the surface of a star.
Notes: the stellar fragment is highly radioactive and is hot in the 7,000 degrees Kelvin immediately after the ejection from the fragment is resistant to tractor beams. The materials are resistant to most directed energy weapons. The subject that is irradidiated by the stellar fragment is

in need of medical assistance and anti-radiation medications.

Stellar Fragment Age
2…Freshly ejected from star less than a day. (Tractor beams have no effects)
3…Fresh form star more than a day less than a month. (Tractor beams have no effects)
4…More than a month less than a year.
5…More than a year less than a decade.
6…more than a decade less than a century.
7…more than a century.
8…More than a million years. (Radioactivity is still dangerous)
9…Several millions of years in age. (Radioactivity is less dangerous to starship shields).
10..Traveled from another galaxy billions of years old. (Radioactivity is equal to the background radiation safe to stand on).
11..The oldest fragment ever discovered by the ship. (Radioactivity is equal to the background radiation safe to stand on).
12..The oldest fragment possibly from the big bang formation of the universe. (Radioactivity is equal to the background radiation safe to stand on).

Notes: These are used with the information of the stellar fragments as well.

Here is some more of the other none tech rules we use and have used once or twice mostly it has been used in Gene Roddenberry's Andromeda universe and once in Babylon 5 universe. Just off the top of my head I can think of three episodes of The Next Generation, then one near the surface of the sun in Deep Space Nine and one in Enterprise that a research ships enter into the suns corona. There have been movies where a ship has gone to the sun to prevent the destruction of the Earth by causing the early eruption of a super solar flare. I have a rough outline expanding on the drawing board changing some of the details for different type stars and their size but I never have quite completed this expansion. Until now most of this write up I have never put that many words to it other than a half page hand written notes. I still have several more pages of notes when I get time I will write up to make them sound better.

Stars

In nearly every known solar star system in the known universe has a star at its center with planets rotating around. The stars are various in origins size and are usually at the center of the system. They range from dwarfs to super giants each radiating tremendous amounts of energy that is seemingly wasted to interstellar space. A Sun or suns comprise 99 percent of the total amount of mater in star systems leaving 1 percent for the planets and other material in the solar systems.

The typical star is surrounded by a corona 60,000 kilometers thick (2 MU's) with substantial vertical jets of solar plasma erupting up through the corona. The corona is generally a hot and radioactive section of the sun and ships without proper protection cannot remain from very long as their shields are not capable of handling the hazardous damage to the shields. Starship shields take a beating in the heat and radiation. With a G type star around 1,400,000 kilometers in diameter the circumference is 4,300,000 kilometers at quarter of the speed of light a starship would take a starship 57 seconds and 14.3 seconds at the speed of light. Using the following stats for an average G type star to generate the size of a star.

Diameter: Approx. 1,400,000 kilometers
Circumference: Approx. 4,300,000 kilometers
Surface area: Approx. 54,931,153,850 sq. km

The upper corona is mild in comparison to the lower corona. A starship with standard shields can move into the corona for short times but a ship with Metaphasic shields is longer. The upper reaches of the stars corona (1 MU) has a half damage effect to starships starting with their shields. The lower reaches of the stars corona (1 MU) has a full damage effect to starships stating with the shields. The upper corona has the occasional intrusions of gas jets but they are detected far earlier than those in the lower corona.

A starship hiding in or near the stars corona is lost to the solar effect making it almost impossible to detect a starship within five to ten MU's distance. The random scan would hardly detect a starship and only a direct and determined scan of the sun with sensors would be able to detect a starship within lower corona. Few ships are capable of entering the corona and are usually well kept secrets and military grade warships.

The radiant energy environment around a star causes damage every round that a starship stays in proximity of the sphere. Unless a ship has special shields the ship can be destroyed by the radiant energies. Even before the ship enters the corona the ship is assaulted by heat and radiation when closing to a certain distance 1d6 x 25 damage per round. If on the outer edge of the stellar corona the ship is assaulted with 1d6 x 50 damage per round. Although a little closer into the corona the ship is assaulted to 1d6 x 75 damage per round and then deep in the corona the ship can take 1d6 x 100, attacking the shield integrity first and then the hull of the ship once the shields collapse. Although the ship is subjected to the radiation and heat energies of the star the ship gains a bonus of having a class six cloaking device hiding it. The outer corona damage can be applied for a vessel attempting to slingshot around the star for time travel.

*(**This data is from the DK Ultimate Visual Dictionary pages 32-33: The corona temperature are 4,000 to 6,000 degrees Kelvin depending on the type of star with vertical jets of gas about 9,600 kilometers high. Solar flares reaching out to 40,000 kilometers or more from the surface of the star. A G type star is roughly 1,400,000 kilometers in diameter.)***

The determination of what kind of star is at the center of the star system that is at its center. Roll a 2d6 to determin if the number of stars at the center of the system. 2 – 8 a single star (single star), 9 – 11 is a binary star (twin star), and 12 the system is a trinary system (three stars)and if there is a bonus given by the game master or the luck to the roll 13 it is a quandary star system (four stars). The alternate version is determined by the number of planets in the system and their size. The planets size is equated by size using the generation of a planet as a determination such as Jupiter with a diameter of nearly eleven times the Earth and the division of diameter and rounding up comes up with the above with the planetary order 1_1_1_1_11_9_4_4_1 and figures up to be 33 plus an extra 10 for all the extra material in the system such as asteroids and comets circling the system. A system including the sun would have 4300 points for generation and 99 percent going to the sun. Using the size chart to multiply the above points and then calculating the planets using the above. A multiple star system would equate to the double of the material making up the system. Just use your imagination on generating the system.

How hot is a Star?

Class	Color	Temperature (in Kelvin)	size	Damage
O	Blue	More than 25,000	x .5	x 8
B	Blue	11,000 - 25,000	x .65	x 4
A	Blue	7,500 - 11,000	x .75	x 1.8
F	Blue to white	6,000 - 7,500	x .85	x 1.25
G	White to Yellow	5,000 - 6,000	x 1	x 1
K	Orange to Red	3,500 - 5,000	x 2 to 5	x .75
M	Red	Less than 3,500	x 6 to 15	x .5

Notes: Using the size above to determine the size use the chart above to generate a star size. The temperature is a little consequence but can be used in stellar Fragments. The damage is greater in some versions than others. The hotter stars can cause more damage but their flairs may not be as large and use the size chart to determine the size of a flare.

Using the notes above the heat has a been addressed but the radiation effects that override the ships defensive shield and starts with a threat damage of one and increases every twelve round by one the length of time the ship remains in the corona of the star. The radiation increases past the fitness and/or vitality of the character and once it has past the fitness and/or vitality the characters fall to Radiation sickness. An injection of Anti-Radiation drugs allows the characters to remain in the radiation +25 to fitness and/or vitality. This only happens when the shields are struck by damage greater than the threshold of the shields.

Using the data on page 174 the Solar flares or plasma eruptions happen regularly across the surface of the sun. A vessel that encounters the solar flare takes anywhere from a class A-D with a magnitude of (20d x 300 damage) to the shields instantly and would be like ramming another ship at high warp speeds or use the chart below. A solar flare can easily be the size of a planet as the star is so large.

(*As an example a Klingon B'rel-class bird of prey caught in a magnitude 6 solar flare would sustain instant damage (1800) to all but less than 10% of the hull effectively damaging the ship beyond saving. Simply after the shields have been destroyed the ship's hull is instantly vaporized by the super heated gasses from the surface.*)

In using the below table use d20 x 150 damage equaling out to the same as the above. A 20 sided dice would work well with this and a 4 sided for the below.

Class   Strength modifier
Class A x1
Class B x2
Class C x3
Class D x4

(*As an example a Klingon B'rel-class bird of prey caught in a Class D magnitude 10 solar flare would sustain instant damage (12,000 damage)to all SU's instantly whether or not the shields are deployed. This will also cause the same damage to the additional craft if flying in formation.*)

Solar flares or eruptions can be forced to happen by the use of a starship energy weapon or brace of photon torpedoes fired at the surface detonating sunspots or a forming solar flare. To do this the ship must first scan the surface of the sun thoroughly to detect the buildup of stellar material in the sun. To determine the length of the phaser fire or number of photon torpedoes to cause an eruption by rolling a 1d6 dice and multiplying by 200 to determine the amount of energy to cause the eruption. The best sign is the sun spots denoting cooling on the surface of the planet.

(*The sensors of the starship Cranky determines that the phaser energy needed to cause the eruption is 800 damage (1d6 roll was a 4 and multiplied out to be 800). The Starship Cranky only has a type VII phaser capable of firing three shots and only two when shields are deployed at maximum. It would take the Cranky three rounds to cause the eruption while a Galaxy class would be able cause the eruption in a single round.*)

Another method is to fly your ship very close to the surface and generate a maximum warp field around the ship and going into maximum warp pulling the flare for the surface of the sun.

A unusual Ferengi Scientist had designed a Metaphasic shield that prevents the effects of a star on the ship see the spacedock section on Metaphasic shields and their functions. Basically the Metaphasic shield prevents the

stars radiation, heat and destructive energies from reaching the hull. While the Metaphasic shield programming is active the ship has x 6 that of the normal shields protecting the ship as per Spacedock text. Usually the sensors will detect the eruption well in advance of the explosion and allow the ship to avoid the upheaval.

Note: Some of the eruption from the star's surface can surpass the shield protection destroying the ship even with Metaphasic shield deployed. That is the ship does run into it was noted above.

Destroying a star
The use of certain dangerous materials can cause a sun to either implode or go super nova by introducing them to the deep photosphere. The material Tri-lithium can cause a stellar implosion and a dangerous shockwave. While proto-matter can cause a star to restart, however to introduce proto-matter into an active, healthy star, the star will become unstable and soon explode in a supernova destroying all in the system. A specialized weapon such as the Tox Uthat is a quantum phase inhibitor capable of stopping all the nuclear fusion in the center of a star. Your game master will determine what kind of weapon can be used against the stars.

Supernova
The death of a star, which has exhausted almost all of its nuclear fuel and lacks the ability to sustain itself will collapses in on itself, triggering a final explosion. The explosion travels at the speed of point nine the speed of light. And object caught in the shock wave is instantly destroyed.

The mechanics is this the shock wave causes instant damage of 10d6 x 10,000 damage to any ship caught within one AU distance of the sun traveling at 9 MU's per round. Unless the ships sublight speed is faster or the ship is capable to going to at least warp factor one the ship is doomed. For each AU of distance traveled the damage drops by half. Once past the distance of one million MU's the ships shields will be able to handle the shock wave.

Studying the stellar collapse a well trained science crew should be able to determine the time of the supernova. While doing so the ship is bombarded by 1d6 x 5 damage in gravitational shifts against the ship. While there are gravitational shifts the water molecules can be changed to affects the crew much the same as alcohol and can cause the delay in leaving the area of the supernova.

Even though the vessel is past the danger zone of the vessel is still subjected to the gravimetric pull when the star continues to claps in on itself. The instantly the gravity pulls the ships in with a riptide counter force. See Black holes.

White hole
A hypothetically entity, the opposite of a black hole from which radiation and crushed matter appears from nothingness.

The formation of a white hole in our game works is an eruption of matter from the seemly nowhere. The instant of the eruption the shock wave emitted from the white hole is 2d6 x 50 damage for all vessels caught within 100 MU's of the eruption. The initial eruption can cause even greater eruptions ten times the original eruptions. The matter and the radiation is treated the same as being caught in the corona of a star.

SHOCKWAVES
Most stellar events cause shockwaves that can cause damage to starships and planets. Shockwaves are rated 1 through 20 and have a destructive nature. The shockwave is determined with the roll of the six sided equal to the level of the shockwave x 100 with a maximum damage of 12,000. A shockwave traveling a speeds near the speed of light can transverse the solar systems.

A shockwave drops one hundred after each round after the first minute. The speed of a shockwave is determined by rolling 4d6 plus one dividing 20 will give the speed that the shockwave travels with a maximum speed of just over the speed of light.

Example: a Level 7 shock wave has been emitted from a stellar eruption. The Game Master roles a 4 and the shockwave damage equates out to 2800. Rolling for speed the dice roll out at 5 + 3 + 3 + 1 = 13 and then the Plus one calculates out at .7c. If the ship is capable the ship can move out of the way at impulse.

Note: In Star Trek Generation the Armargosa Star emitted a level 12 shock wave. The shock wave would cause 7200 damage and traveled at .9c and would had more than enough destructive force to destroy the Enterprise-D when struck four and half minutes later.

Neutron Star
When a star of three or more stellar masses go supernova the remaining matter collapses back on itself, and turns into a super dense material. The core is no more than 8 to 16 kilometers in diameter after final condensing. The remaining matter rotates quickly emitting radio signals that are detectable. The rotating core can be determined by

rolling three six side dice and then multiple two and then the third generating anything between 1 to 216 rotations in a round. The lower the rotation is the less short and long range communications interference from the neutron star.

It has been thought that there may be planets that survived the Supernova and likely do not have an atmosphere or life on them, but what fun would that be in a Star Trek Universe. If there is life there it would be caught in a temporal distortion millions of times faster than that of normal time. The life span of creatures caught in this distortion would be equal to 85 years of life lived in 44.5 minutes.

Stellar Pulsar
The pulsar rotates several times a second and for game play emits 6d6 x 20 damage each round the ship is within range of one AU distance (150,000,000 kilometers (or 5000 MU's)). The pulses can be detected many light years away and are used as navigational aids. Out farther than the first AU distance is half of the earlier determination and then a half that again for the next AU and then again until the shock waves cause no damage to anything. This is determined for the game by the Game Master before the game is started for the Pulsar. A Pulsar may change after a time.

Lazarus Stars
It is rare type of star which has burnt out leaving a shell of its former self with an interior star at the center. The outer shell will be nearly imposable to pass through and the interior would be a night mare to navigate in. The use of a single warp speed jump into their interior is dangerous and the use of a sonar type sensor is the simplest sensor use of detection. (See Star Trek Stargazer – Gantlet novel). The Long range sensor are cut down to MU than Light years and the lateral sensors are dropped down to whatever Mu the ship is in at the moment.

The Outer shell, the density of the outer shell causes 500 damage per round of attempt to travel through the outer shell. The outer shell is 1 Mu's thick and restricts a ship to .05c of impulse speeds and would cause a ship to take more than a few minutes to travel through. A short warp jump passing through subspace into the interior only causes the ship to pass through at one round sustaining twice the damage.

Interior of the Lazarus Stars is filled with a combination of Stellar/Nebula materials that have dangerous meterials a drift in the gaseous materials. The ship is restricted to the speed of .1c per round.

The interior of the Lazarus Star has over 70,000 cubic MU's of interior that may need to scanned for danger.

Ionized Gas Torus
A volcanic moon orbiting a gas giant that has created a doughnut-shaped cloud of tenuous gasses along its orbit around the mother planet. These gaseous have become ionized from the magnetic field and will interfere with the function of starships sensors making it difficult to detect a ship hiding in the ring. These gasses will also affect the ships weapons if the weapons do not detonate the gasses instantly.

Spatial Interphase
This unusual time-space phenomenon first encountered by the Federation Starship U.S.S. Defiant NCC-1764 in the year 2268. This event was a brief overlapping of different dimensional universes overlapping briefly. The effect is the ripple in the fabrics of two or more universes overlapping one another. The momentary interphase allows a ship to travel between dimensions as well as time.

A ship may seem to dissolve at the moment of crossing over or brushing the edge of a spatial interphase event. At the moment the hull and passengers are partly there and characters hand may pass through the hulls and bodies with ease.

Just prior to the moment of interphase the majority of life forms are affected by the stress on the fabric of space. A difficulty roll against 14 the lose the character is affected and the character is affected by madness for each.

The special interphase can be caused by detonating a modified Tricobalt device on a region of weakened section of space causing ripples not only in this universe and all neighboring universes.

Do to the interphase event any weapon usage and the movement of a ship causes additional ripples disrupting the regularly timed interphase events.

Nebulas notes
Questions: Does a nebula makes a good place to hide, yes. Does a nebula makes a safe place to hide, no!

The average nebula is just a cloud in the sky, but in the Star Trek Universe a nebula is an enigma wrapped in danger. In doing so I have added to the nebula information on Page 173 of the Spacedock: The

Advanced Starship and Construction Manual. In generating this I came up with the following chart making the Nebula's a little more interesting place to explore. Some of the charts are still works that change as progress continues.

Nebula size

To judge a Nebula's size here where we play a little faster with the dice using a ten sided dice. Using the ten sided dice rolling it gives a length and width and height in MU's for a small nebula. For a medium nebula use two ten sided dice adding the result for the dimensions. And then for a medium nebula using three or more ten sided dice adding the results together for the size of the nebula. (Notes: for a medium nebula that has 30 Mu's per side will be 27000 cubic MU's in size.)

Nebula sizes

Small 1d10 MU's
Small medium 2d10 MU's
Medium 2d10x2 MU's
Medium large 2d10x4 MU's
Large d100 MU's
Extra large d100x10 MU's
Immense d100x100 MU's (easily three hundred million kilometers across)
Anything larger see you GM.

A developing solar system would be four hundred million MU's across and four hundred MU's in height. The nebula would be roughly three hundred twenty billion cubic MU's in size. For a developing solar system notes see below. Or a cluster of smaller nebulas clustered tightly together that they might have a name as a Milton cluster and the nebula's are multiple clusters.

Interference

Although there are classes of Nebula their interference varies slightly between them. Using the charts below varies the Nebula interference levels slightly. I have made averages to the chart and made a random chart that gives a variance to the interference levels.

The outer boundary

The outer boundary of the nebula is a dense region that does much material has gathered it appears as a dense but translucent wall as a ship approaches. The vessel can plunge through most boundaries with little problems.

Ships with hull resistance less than an eight will need to make a damage check unless the ships shields are deployed with half power or more. A vessel who result fails receives 2d6 damage with no resistance prevention. Use the damage chart to determine which system or systems received damage.

The Interior beyond the boundary

The interior of the nebula may have the changing density for each round of travel the ship moves or to the GM's whim. The roll of 4d6 damage to determine the density and receiving damage to the shields and ships. Another alternative I have also used with the some nebulas is the have someone roll 2d6 as a base line and then use the 4d6 as a change in the local density per turn. But that usually is a nebula that prevents the use of shields. In addition to the overall stress the stress increases by 1 per each .1c and when a ship goes to warp whatever the stress in multiplied by 2 plus whatever Warp Factor it is.

Example: The Federation starship Scorpion is two MU's from the boundary of the nebula and is being pursued by an alien warship goes to warp. The starship Scorpion leaps into a Warp speed factor two from a .1c. The nebula has a natural stress of 3 plus an additional 6 for that round with the leap the new stress is now increased by 4 times resulting in 36 damage to the ship. Just a note a vessel going into warp nine would generate 99 damage to applying to the ship. A small ship it could be extremely damaging to the ship to a point where the ship could be debilitating to the ship and even crippling its ability to fight.

Some ships may have shields that fail to maintain a shield in the nebula. To determine whether the ship can deploy its shields roll a single six sided dice, odds no shields are available to deploy and evens shields are deployable. …or use the following chart.

Interference

Although there are classes of Nebula their interference varies slightly between them. Using the charts below varies the Nebula interference levels slightly. I have made averages to the chart and made a random chart that gives a variance to the interference levels.

The Nebula classes

Class.....Interference Strength …… other anomalies modifier
Class 1 (A)…… 1-2 Interference ...……….. -1
Class 2 (B)…… 4 (3-5) Interference 0
Class 3 (C)…… 9 Interference (Mutara-class)…+1
Class 4 (D)……Emission nebula .... -1
Class 5 (F)…… 4-5 Interference ...………. +2
Class 6 (G)……7 (6-8) Interference .... -1
Class 7 (J)…….A dark nebula one which emits little or no detectable energy (including light). Acts as Strength 10 interference (minimum), and makes a good hiding place… -3
Class 8 (K)…… 10 (9-12) Interference .... -2
Class 9 (L)…… 3 (1-5) Interference .... -1
Class 10 (N)…. 3 (2-4) Interference .... +2
Class 11 (O)…. 7 (6-9) Interference .... +1
Class 12 (P)…. 6 (5-8) Interference .... -1

Class 13 (R)…. 4 (3-5) Interference ……. 0
Class 14 (S)…. 10 (9-12) Interference …. - 1
Class 15 (T)…. 2 (1-3) Interference ……. +2
Class 16 (X)… 9 (8-10) Interference …… +1
Class 17 (Y)…. 5 (3-7) Interference ……. +3

Interference Verances
Roll 1d6…Strenght Change
1………..-2
2………..-1
3………..-0
4……….+0
5……….+1
6……….+2

Nebula density
Roll 2d6…Result
2....Extremely light (-2 interference)
3....light (-1 interference)
4....light (-0 interference)
5....Medium (+0 interference)
6....Medium (+1 interference)
7....Medium (+2 interference)
8....Heavy (+2 interference)
9....Heavy (+3 interference)
10………..Heavy (+4 interference)
11………..Extremely Heavy (+4 interference)
12………..Extremely Heavy (+5 interference)

Combat
In a Nebula a pair of ships in combat may encounter pocket of explosive gasses that can be triggered by energy, missile, shields and starship engines getting far too close. The charts below is used to determine whether there are these pockets in the nebula and there explosive yields the damage a gas pocket is random generation of yields. One pocket could take out a shuttle while another just shakes up the shuttle.

Explosive pockets
Roll 2d6…...Results
2… …..…..No pockets
3…..…..…..No pockets unless Nebula Interference is over 10 then there is three per MU's
4…..…..…..There is one pocket per each of the Nebula's MU's
5…..…..…..There are 1d6 per each MU's of small explosive yield
6…..…..…..There are 1d6 per each MU's of small explosive yield
7…..…..…..There are 2d6 per each MU's of size of medium explosive yield
8…..…..…..There are 2d6 per each MU's of size of medium explosive yield
9….. …..…..There are 2d6 per each MU's of size of high explosive yield

10…..…..…..There are 3d6 per each MU's of size of high explosive yield
11…..…..…..There are 4d6 per each MU's of size of high explosive yield
12…..…..…..There are 3d5 times 3 per each MU's of size of high explosive yield

Explosive yield
Small explosive yield 1d6 time 10 generating potential damage
Medium explosive yield 1d6 times 50 generating potential damage
High explosive yield 2d6 time 100 generating potential damage

Roll 2d6…Result
2....Unknown gas mixture (No increase)
3....Deuterium (times 2 to explosive yield)
4....Unknown gas mixture (divide explosive yield in half)
5....Deuterium (times 4 to explosive yield)
6....Known gas see chart
7....Known gas see chart
8....Deuterium (times 3 to explosive yield)
9....Known gas see chart
10..Unknown gas mixture (divide explosive yield in half)
11..Unknown gas mixture (No increase)
12..Deuterium (times 5 to explosive yield)

Known Gas Chart
Roll1d6…Result
1………..Zarillium: often mined the Explosive yield is twice that of normal but if contacted by shields absorb increasing the threshold by doubling its protection. For five round per shield contact, a second exposure could double that shield threshold as long as it does not pass the shields protection.
2………..Tillium: often mined the explosive yield is ten times that of the yield of a high Explosive yield the damage can detonate other pockets in the MU.
3……..…Helium corruption: the Explosive yield is half of the generated pocket.
4-6……..Tylium: often mined as an alternative fuel generating triple the explosive yield.

Developing Solar System
After using the above system there may be points in the development of the system that planets may be forming. While traveling through the nebula a starship will need to navigate around the forming planets. When at the center of the Nebula a star or stars may be forming and the temperatures may be rising.

Stellar Ignition heat.
The stellar ignition heat against a starship shield or hull can be hazardous. Using the shield thresholds the shields are capable holding off a certain amount of heat before

the shields resistance is overwhelmed. Once the shields fail the hull begin to melt. The heat with in an MU may change as the ship approaches the center of the pre-star core. A specialized hull and shields maybe needed for entering the area. For a forming planet use the same chart but the 1d6 adding one to the result for the planetary heat dividing the heat by half. For a ship hanging around in an area for more than three rounds has to make a roll to see if the temperature has changes as they are being drawn into the forming stellar bodies. The damage is caused by the heat and pressures that are generated by Gravity. (Notes: a science mission to deposit a sensor that can record data on the formation of the planet or star can be deposited near the forming star.)

Stellar Ignition heat.
Roll 2d6……Result
2….…heat damage is 1d10 x 10.
3….…heat damage is 1d10 x 20.
4….…heat damage is 1d10 x 40.
5….…heat damage is 2d10 x 80.
6….…heat damage is 2d10 x 100.
7….…heat damage is 2d10 x 200.
8….…heat damage is 2d10 x 400
9….…heat damage is 2d10 x 600
10……heat damage is 2d10 x 800
11……heat damage is 2d10 x 1000
12……heat damage is 2d10 x 1200

While some Nebula's have heat other nebulas have a type of Electro Static Discharges dancing through the nebula's more concentrated areas. They the charges can be dangerous to lesser shielded ships low yield electro static discharges damage 1d6 x 5, the mild discharges damage 1d6 x 10 and the high yield discharges damage 1d6 x 20 and there can be two discharges per round.

The Electro Static Discharges can be triggered by energy weapons or the used of tractor beam and graviton based weapons. If any of these devices are used the damage is doubled if the weapon causes a discharge. The difficulty for triggering a difficulty is 12 if you are trying to do so.

Unseen Obstacles
Like anywhere in the galaxy there may be asteroid and/or a stellar core fragment caught in the nebula. The sensor difficulty is increased to a point that the ship may not see the object till a collision happens.

Subspace Anomalies
Within a nebula there are some subspace anomalies that can cause troubles that may cause potions of solid matter phase allowing other matter to pass through such as

mysterious hull breaches that appear and disappear quickly.

Other anomalies such as rebounding shock waves are caused by the ships shields and/or engines as they pass through the anomalies. For all each point of power used 10% increase to the rebounding effect. So a Starship with shields projecting 1200 protection would have 1320 damage in the rebounding effect that would over load and the ship would receive damage that could cripple the ship enough that it would prevent the ships escape. The rebounding waves would eventually push the ship clear of the nebula.

Of course there are other anomalies that I have not mentioned here that are as dangerous but not as uncommon.

Proto-Nebulas
A Proto Nebula erupts from seemingly out of nowhere and expands randomly at an unknown moment times. The sheer stresses can tear a vessel apart. Sensors can detect the presence of the Proto-Nebula even before the eruptions happen. The Proto-nebula is seen in the episode of Star Trek Voyager in the episode Drone where the shuttlecraft is caught in the eruption and is destroyed by the expansions and the stresses.

The simple roll of the dice determines that the Proto-Nebula in erupting from subspace. Another roll of the dice determines the amount of expansion. To determination of the Eruption or Expansion the GM rolls a four six sided dice at the end of each round, if the dice and if the count on the dice is eighteen or larger the expansion happens.

The size of the eruption is figured by the roll of the same four dice and the result is multiplied by 123 and the result is the expansion of meters across at the widest point. If all dice rolled are the same the Proto-Nebula expands twice as much as the calculations. Or you can use the variation of expansions by rolling the four or more dice and adding or multiply them together to generate a growth rate giving a result anywhere from 1 to 1296 cubic meters.

The Proto-nebula's sheering stress is intense and changing causing 4d6 then multiplying up the dice for the amount of the damage each round caught in the edge of the nebula. Starship shields are capable of defending the ship but even the mightiest 24th century ship cannot defend against the onslaught of sheer. The sheer stresses increase three times at each expansion of the nebula.

The initial shock wave of the eruption strikes hard against the shields of the craft. It is generated by a 1d6 x 75 damage striking against the shields of the ship.

Nebula Eddies

The interior of some Nebula's have paths of movement that encircle the nebulas interior and can cause a ship to either slow or accelerate as the ship passes through these eddies. The ships engines will have to work harder as they pass through the nebula.

1d6	affect
1	eddies against the path of the ship .1c faster than the ships maximum sublight speed
2	eddies against the ships forward course of .5c
3	eddies against the ships forward course of .2c
4	eddies against the ships forward course of .1c
5	eddies from the side of the ship causing navigational drift off course of .1c
6	eddies aid the ships forward momentum by .1c
7	eddies aid the ships forward momentum by .2c
8	eddies aid the ships forward momentum by .3c
9	eddies are light with negligible effects to the ships momentum.

Badlands and plasma storms

A region of space along the Cardassian boarder a stretch of a nebula like clouds populated with dangerous plasma storms. A plasma storm can cause not only damage and cause navigational errors in effected starships.

The Badlands stretch a few hundred AU's in distance and can be traversed by small ships. Maneuverable size one and two can fly around the plasma funnels and size three and four begin to encounter difficulty and size five and larger find the badlands even more difficult. Generating a warp field requires twice as much power to maintain the warp field.

Roll 3d6+5 to deterring the number of plasma storm funnels that the ship has to maneuver around per MU of travel. Each round the ship's conn has to roll to make the determination of how many of the plasma storm funnels for the next stretch of the journey. The plasma funnels are attracted by active warp space fields from the nacelles. The difficulty of maneuvering is ten plus the size of the ship, so an intrepid class ship would have a difficulty of 16. The ship if it makes contact causes 3d6x40 damage when impacting shields or hull directly.

The badlands either has a plasma storm or not. Every twelve rounds of travel the roll for the determination whether there is a plasma storm or not. Odds or even determines whether there are storm's but if searching for a storm sensors can usually locate one with in distance of a few minutes flight.

Sensor difficulty is automatically raised by five on entering the badlands and another two on encountering an area of plasma storms.

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Planetary Nebula

Here is some of my notes on the Planetary Nebula that I came up with for adventures for the groups we run. These are specific to Planetary Nebulas of the type of the nebula such as thicker portions of dust and gravity fluxes that I have tried to address before we used the Planetary Nebula in three adventures. These notes can be used with any Nebula notes I have previously posted.

This is generated from the Star Trek Voyager Technical Guide Version 1.0 Section IV: A Celestial Bestiary Page 33 and Writer's Guide to Creating a Science Fiction Universe page 39 though 69 written by George Ochoa and Jeffrey Osier and Star Trek: The Next Generation Role Playing Games by Last Unicorn Games, Star Trek Role Playing Game Worlds sourcebook by Decipher games and some creativity.

Comment if you see any problems with it other than it is designed to operate with Spacedock only.

This planetary Nebula is in the nearing the final process of formation of the planets and the star is on the verge of Stellar Ignition. The adventure is based on the texts above and ideas I have come up with in watching tv, movies and books.

A dusty nebula in the process of forming a planetary star system, it is like a swirling in a pizza formation, with a thinking of the pepperoni placement as planets location. The slight bulge 200 MU's thick at the center is the stellar core forming a planet. The average thickness of the nebula is 150 MU's thick. The average star system is 12 billion kilometers across (400,000 MU's). The system can be varied game to game.

Use page 7 of Deciphers Star Trek Worlds to generate the planetary orbital position around the star.

The central stellar core temperature is in the twenty million degrees Celsius. The formation of the star with the quadruple density causing the movement of ship to reduce speed by dividing full impulse speed by four with no less than .1c when the ship passes through the region. When passing through the core of the nebula use the star notes for passing in close proximity to the star with all the costs and damages that is implied by the closeness to the core.

The planets in formation the average nebula temperature is two million degrees Celsius and should not cause too much trouble for a ship's hull even a shuttlecraft can resist a sustain 1 damage per round with the ships own resistance and double that in the areas where the planets and star is forming.

When traveling in the Planetary Nebula the only occasions there is trouble with radiation is near the stellar core formation and the planets formations. The sensors should be able to detect the radiation before reaching the radiation. While in the radiation areas the characters must make a health check to determine whether they have been poisoned by the radiation. To determine radiation poisoning add fitness plus 4 to determine the challenge. Rolling 2d6 will determine whether the radiation has affected the character. Hyronalin, the anti radiation medication increases protection by four by reducing the number by failure by two.

The average full speed that a ship full impulse speed divided in half while in the nebula so a an Oberth class travels with a maximum impulse at .65c and will be reduced to .3c using the same energy as the .65c the ship can travel at the .65c with the exceeding push of the impulse engines and most Captain would not be willing to do so and travel at .1c to .25c unless there is combat or there is a rush in the moment. The stress on the impulse engines is high while traveling in excess the stress will accumulate per the number of points till the point's reach the number of SU's that the impulse engines have and begin taking damage from the strain against the nebula.

Example: A Galaxy class has two impulse engines and figure out to be 70 SU's running at full impulse the ship can maintain the speed for seventeen rounds before sustaining any damage from the stress of full impulse. A Constitution-class starship has 18 SU's and would be able to travel at full impulse for four rounds before sustaining damage. The Excelsior would be able to travel five rounds or eleven for Enterprise-B version and our old friend the Oberth would travel four rounds.

A vessel traveling at Impulse speed beyond the reduced full speed causes d6 time the impulse speed beyond the reduced speed x 5 damage. The star the final result is increased by tripling the damage and if entering warp speed while in the Nebula the damage is multiple by the number of times speed of light (c) such as warp two would be 2700 damage. A jump to maximum warp would do extreme damage to the ship in such as 514,620 damage in a single round. Folded space travel or Battlestar Galactica FTL jump engines are exempt from the above rules.

Example: An old Oberth-class Surveyor moves at top speed at impulse of .65c (6 MU's) in normal space but in a nebula at three MU's per round. To plow through the nebula would take 50 rounds more than four minutes at speed. Nevertheless the slower ship would be better to be able to detect changes in the nebula's density. Using the above example but if traveling at the .65c the damage could maximum be 90 damage. The Oberth class starship would be able to travel five (actually 5.8) rounds till the failure of the shields on maximum and yet the shields on a Nebula class starship would have enough shields to sustain this dangerous speed through the nebula as long as their shields are maintained or active (see notes below).

Now if that same ship goes to warp factor two the ship could sustain 2100 damage and could easily destroy a starship in a single round and again in the next round as well if the ship survived. Simply put, it would be like a throwing a snow ball against a brick wall.

The nebula area where there is a planet in formation the ships speed is cut down by dividing by three. The speed of a ship like the Oberth is slowed to .2c (2 MU's) of speed.

The area of a planet in the process of forming such as a Jovian type planet would cover increased area of ten MU's with an increased density reducing the ship. A terrestrial planet would be 3 MU's. While in close location to the planets the ship going to warp would result in the same damage as noted above and increased by doubling the resulting damage.

The sensor ranges have greatly reduced sensor ranges and capabilities. The long-range sensors become totally useless. The average density of the nebula reduced the sensors range to 300,000 kilometer. The sensors are capable of detecting much like the Phaser ranges (10 (difficulty 2 - 0 MU's)/30,000 (difficulty 4 - 1 MU's)/100,000(difficulty 8 - 4 MU's)/300,000 (difficulty 16 - 10 MU's)). The difficulty doubles as the ranges increase starting with 2 at the closes range. Communications ranges are reduced to that of 3,500,000 kilometers (Type II Photon Torpedo range 15 (difficulty 3) /300,000 (difficulty 6 - 10 MU's)/1,000,000 (difficulty 12 - 33 MU's)/3,500,000 (difficulty 24 - 116 MU's)) with a difficulty of 3, and doubling for each range increase.

Combat in a nebula the phaser and Photon torpedo ranges are reduced by half and an additional roll using the following chart (Phaser 5/30,000 (1 MU)/60,000 (2 MU's)/150,000 (5 MU's) - 8/150,000 (5MU's)/500,000 (17 MU's)/1,800,000 (60 MU's)). The premature detonation of the weapons fire before the impact because of density becomes a problem to ships. Shock waves from the

premature detonation is doubled but drops off each MU by half till it vanishes. The phaser beams loose ten percent of their damage potential per MU so a phaser beam fired to the max range would only be half as destructive as normal. Shields are reduced by half their reliability in the nebula and then half of that during that in the proximity of a forming planet. As for the shields the roll of 2d6 to determine whether there is shields as 2-4 nebula emissions prevent shields, 5-8 shields are reduced to a third and 9-12 shields are halved. All detonations cause shockwave double their damage unless the below chart says different except that the weapons impact acts as normal damage to the hull.

2D6   result
2….......No Premature detonation
3….…..Premature Detonation one quarter way to destination triple the shockwave
4….…..No Premature Detonation
5….…..Premature Detonation three quarters way to destination quadruple the shockwave
6….…..No Premature Detonation
7….…..Premature Detonation half way to destination double the shockwave
8….…..No Premature Detonation
9….…..Premature Detonation half way to destination
10.…...No Premature Detonation
11….…..Premature Detonation half way to destination triple the shockwave
12….…..No Premature Detonation

In the proximity to the forming planets or stars the difficulty is doubled as well as the shockwaves are doubled. Combat in near proximity to the forming planets is far more dangerous. Such as the battle between the Enterprise and Reliant caught in battle in the nebula with limited sensors and shields.

Cloaking devices are useless in a nebula as the nebula gases work better as a pointer to the cloaked vessel. The dust also collects along the leading edge of the ship or shields showing that the ship is there.

The Pre ignition star is on the edge of igniting into a star and blowing off the residual dust cloud. The star can be ignited by firing or causing a detonation of 3000 points of damage in a single round or something equal or better to that. The stellar ignition will generate a level three (300 damage when struck) shock wave precursor to the stellar ignition and then a rolling a 5d6 for rounds (max 2 and a half minutes before ignition) before stellar ignition is completely started with a level twenty (2000 damage) shock wave generated from the actual ignition. If the ships was able to stand against the pre-ignition shockwave the ship must go to warp speed that there is now a window to do so as much of the dangerous dust

and gasses are now blown away from the core and escape. If there has been a battle the ship may have warp engine troubles and have troubles in going to warp or other faster than light. The shock wave disputes 1 damage per every 10 MU but sensors can detect the change in the nebula all the way to the furthest edge of the nebula. A natural stellar ignition would be less destructive and would gently push the remaining gases out over centuries leaving the planets and other stellar objects undamaged by a shockwave.

The gravity wells for the forming terrestrial planets are usually contained to the same MU that the planet occupies but with the forming planet the gravity well extends out into the next MU. The gravity well of a gas giant extends out at least two MU's beyond the planet. This usually pertains to hyper drives and Quantum Slip Stream drives.

The Missions that are possible in a nebula like this. These missions allow the reuse of a nebula in multiple stories.

Mission One: Search for a missing ship lost and drifting towards the forming planets and the rescue ship has to go in and search for the ship. The GM will discern the location or whether that the rescue ship is nearing the lost ship.

Mission Two: The science ship is designated to deploy sensor probes in the forming planets to transmit to a series of communications antennas that will transmit to a small station outside of the nebula but near the central.

Mission Three: The search for a renegade pirate vessel hiding in the Nebula. The GM will discern the location or whether that the ship is nearing the pirate ship or another player will play the pirate vessel.

Mission Four: The Federation ship passing through the area travels through the nebula instead easily flying around at warp speed "what fun would that be." The encounter with something would be the point of the story such as a giant Amoeba would be the event.

Mission Five: The Federation send a science ship into the nebula to gain a better understanding of gravity and the water based intoxication can cause problems with the crew and there is a few that are naturally unaffected by the water toxicities.

Mission Six: The Federation ship on a covert mission needs to hide from an enemy ship has to play hide and seek to keep their cover. If push comes to shove the Federation ship must fight against the enemy ship inside of the nebula. Note a good commander would use the

nebula to his advantage in the fight. (Good to be used during the Dominion War.)

Mission Seven: Used as a complication in an adventure listed above in mission three and six the sporadic use of energy and antimatter and Quantum based weapons opens a portal where the ship sails through a few trillion years into the future and the star system had matured and there are sentient life living there and aid the ship in returning. The other details can be different as it is trillions of years the Federation no longer exists and the human race has under gone significant changes.

Mission Eight: the Preservers super ship that is manipulating the generation of the nebula and the developing the planet. (Just an idea for a future adventure.)

I am sure that there would be other missions that can be generated but these are just a few that I thought up and we have used in the games. One was with the Andromeda type game we are playing when we have a story that will work with it.

GM Notes: I usually generate a map to keep some consistency in the locations of some of the nebula's details as a rotation of the nebula and the planets and their location (They really don't change position in the game as they will all rotate in the same direction at the same pace in the to keep some distance during generation. If the ship returns to the Nebula use a different arrival point to designate as the entrance or usual point of origins or the coordinates of where they had entered the nebula before.) I use a large sheet of graph paper that I have marked the locations of the planets and central star.

QUANTUM SINGULARIZES
Formation of a Black Holes

The formation of black holes are created when a Stars mass reaches a point that the energy expended is no longer balanced and the star collapse in on its self. Any ship caught in range will pull the ship into the collapsing gravity well. If the ship is lucky a wormhole is formed and the ship could fall into the wormhole and find itself light-years away and in the middle of next week.

For this there are two types of Black Holes (Quantum Singularly), Type I draws all material in compacting it into speck less than an atoms size. While the type II transports the crushed materials somewhere across space and spews it out either in another universe or place in out space. With a Type II specialized equipment the

ship can pass throught the event horizon to the other side and back.

Starships sensors should be able to collect enough information to predict the stars collapse with enough time leave the area with due diligence. The difficulty for the time periods is listed below.

22nd Century......... 16 (so far untested)
23rd Century ….......12
24th Century……….10

The gravity well of a Black Hole is powerful. Unless the ships is using some technology the event horizon is an automated death sentence for the most advanced starship (i.e. Walt Disney's Black Hole movie, Gene Roddenberry's Andromeda). The stress of a black hole lessens the farther out the ship travels. See chart below (it may seem to be exaggerated but I have used this if Andromeda as well.)

A object the size of a fireplace brick weighing a standard earth weight caught in the stellar drift of the Quantum Singulary would follow the fallowing if there is no other forces calling on it would move at the following at distance.

A Black Hole accretion disk is around 4 million kilometers (2.5 million miles/133.3 MU's) in diameter with an event horizon of 58 kilometers (36 miles) for a black hole that has the matter of ten star systems.   A few MU's distance the tearing stresses on a starship would rip a starship apart no matter how strong their shields are.   Accretion disk for an average star freshly formed would 2.8 kilometers (1.75 miles).   As the black hole collects the matter form its own solar system and the nearby neighboring solar system increasing the compressed matter to the point where the gravity matter compresses. The noticeable pull reaches out to 1 million MU's from the event horizon of the black hole.   This is enough to pull a starship off course whether traveling at warp or sublight speeds.   The effects can be felt for light-years pulling on all the neighboring star systems for each years. At the center of the black hole the pulling effect the event horizon pulls on the ship is near the strength of the speed of light. Near the center of the accretion disk, the temperatures would melt the materials to the point of evaporation points.

31,557,600 MU's…. (1 light years) No effects to navigation or starship drift.
* Usually countered by the ships shields threshold that is until the crushing/tearing effects override the shields, drain the shields away, and then tear the ship apart.   The only countering effect is from a zero gravity device or AG generator (Gene Roddenberry's Andromeda).

Note: within one MU of the event horizon 1 second would over three hundred years will have passed beyond the temporal distortion ring. Most any ship not properly equipped caught within 10 to 12 MU's usually do not make it out do to the stress on the ship even a Galaxy class would be lost to the stresses instantly. Even at 30 MU's distance, a ship holding position for three hours would have spent 12.5 days beyond the temporal distortion ring. Only ships with sufficient speeds and trajectories can use the gravitational forces of the black hole to sling shot out of the effect and this is usually difficult to do and has a difficulty of 14. At 17 MU's Galaxy-class would be torn apart in 12 rounds equaling 1.59 years beyond the temporal distortion range

The speed a starship accelerates at the quantum singularly is increased by the pull of the quantum singularly will increase the speed. The vessel with the impulse at .75c will be accelerated with the pull of 11 MU's will be traveling .95c, or if the vessel is attempting to leave from the same position would be traveling at .55c as the pull would slow the ship.

Notes: the vessel traveling at faster than .99c the ship begins to sustains time dilation. The dilation is doubled per point over. The vessel caught near the Event horizon traveling with a thrust of .95 the ship would be caught in a temporal distortion where the time would slow to nine times that of normal. For every second on the ship nine second would pass beyond the quantum singularly. Where a ship that shifts into warp 9.9 near the event horizon would see a distortion would be 1 second to 90 seconds x 1000 and would be more than one day for each second in the range of the quantum singularly.

Temporal Event
A starship engaging the warp drive to pull away from the quantum singularly or artificial quantum singularly causing a temporal event may be sling shot through time. Rolling two six sided dice to determine if a temporal event occurs such as time travel. Use the Wormhole time/distance chart below if both dice land the same.

Wormhole distortions
Within 8 MU's of the quantum singularly the ship can find a naturally existing wormhole that can draw a ship into it. A ship can find itself light-years away and days into the future or centuries.

Wormhole time/distance
(1d6) 3d6…time Result……………distance
(1) 3………1 Second………………100 MU's
(2) 4………1 minutes..……………1000 MU's
(3) 5………1 hour……….………....10,000 MU's
(4) 6………1 day……….…………..100,000 MU's
(5) 7………1 Month..………………1,000,000 MU's
(6) 8………1 year….....……..……..10,000,000 MU's
    9……..10 years………..………100,000,000 MU's
   10…….1 century……….……......1 light-years
   11…….10 centuries……….……10 light-years
   12…….100 centuries………..….100 light-years
   13…….1000 centuries…………1,000 light-years
   14…….10,000 centuries……….10,000 light-years
   15…….100,000 centuries……...100,000 light-years
   16…….1,000,000 centuries…….One million light-years
   17…….10,000,000 centuries…..Ten million light years
   18…….100,000,000 centuries….One hundred million light-years

Tech
AG generators (zero gravity generator)
SU's Cost size 5 x size
Power Cost: 1 x size
Anti-gravity generator systems changing the deadweight to level lighting ship allowing the lift the ship with the thrusters only or in the case of the black hole travel into the black hole. A ship could park on the edge of the event horizon indefinitely if the generator is adjusted right. While traveling at faster speeds the ship is still affected by the time distortions. *(Gene Roddenberry's Andromeda)*

Artificial quantum singularizes
An Artificial Quantum Singularly is usually a short lived event except the Romulan warp core. These exotic weapons are destructive and have side effects from their use with exceptions. They are complicated and costly to construct and manufacture requiring great energy to produce in useful quanties.

Artificial quantum singularly/Black Hole
The Artificial Quantum Singularly such as the Romulan Warp Core sees the Romulan Spacedock. These artificial quantum singularizes are short lived and normally do not continue to exists after initialized. A Romulan Warp Core sustains the singularities artificially. A Romulan Warp Core sustains the singularities artificially once the core fails the singularity no longer exists and the hole collapses back in on itself.

Quantum Singularly Weapon
The device is the size of a Type II Photon Torpedo and creates an Artificial quantum singularly 10 MU's (three hundred thousand Kilometers) with a gravity of equal to the pull of 1.5c for the duration of four rounds this weapon can pull the ship in crushing it. This weapon requires an advanced launcher and one can only fire one missile at a time. These weapons are banned by the every major galactic government do to the dangers of the weapons. If the ship is destroyed with the unused weapons on board they will not detonated.

Red Matter
Red matter a processed ore is used to prevent the shock wave of a supernova by planting a drop into the star a moment before the explosion. It takes a great amount of energy and gravity to trigger the Red Matter. The duration of red matter is only active in the short distance of a few thousand kilometers range creating the artificial black hole devouring all that is in ten thousand kilometers for a total of 12 rounds with a pull of .45c of all matter into the event horizon of the hole. A red matter singularity differs than that of an artificial Quantum Singularity as it is not contained.

White Hole (the back end of a black hole)
The white hole emits energy and radiation in intensely strong waves. A science vessel may wish to move in closer to scan the event horizon of the white hole to gain science knowledge.

The ships shields may holds off great deals of energies and radiation but even the shields have a point that they fail to do so. Even with radiation treatments the ships can be lost. At the Event Horizon the radiation emission varies from moment to moment. Rolling 1d6 x 200 damage to the shields. Radiation see chart.

Radiation affects
2d6…Result
2……minimal radiation no hazard to life forms
3-4…. minimal radiation anti-radiation meds prevent affects
5-6….moderate radiation anti-radiation meds prevent affects for days
7-8….moderate radiation anti-radiation meds prevent affects for hours
9-10...moderate radiation anti-radiation meds prevent affects for Minutes only
11..…heavy radiation anti-radiation meds does not prevent the radiation affects
12…..heavy radiation death imminent in moments.

Anti-raidiation medication
The use Anti-radiation medications work within tolerable levels of radiation but when the RAD levels pass a level that even the shields and medications can deal with. In the higher levels the cells die faster than the medications can prevent them. Even the Borg Nano technology has not been able to prevent the death from radiation.

Planetary Explosion

There have been exploded planets and planetary space debris dating back to the original series. In Star Trek Voyager an alien species blew up a planet to capture Voyager in the dust and debris. These are the rules used by our group on the planetary explosion and the subsequent starship investigation of the area. I've kept the math as simple as possible.

The planetary explosion causes 2d6 x 1,750 damage to any ship caught in the same MU as the planet. The damage decreases by half each MU it spreads out from the blast point. Be sure to record the damage per MU as it comes into play later. It will look something like this. This does not need to extend past the decimal but once it reaches a level that it does not do any damage to your ships. Round up.

MU - 1 - - - - 7,000 damage
MU - 2 - - - - 3500 damage
MU - 3 - - - - 1750 damage
MU - 4 - - - - 875 damage
MU - 5 - - - - 438 damage
MU - 6 - - - - 219 damage
MU - 7 - - - - 109 damage
MU - 8 - - - - 55 damage
MU - 9 - - - - 27 damage
MU - 10 - - - - 14 damage
MU - 11 - - - - 7 damage
MU - 12 - - - - 3 damage
MU - 13 - - - - 2 damage
MU - 14 - - - - 1 damage

This particular planet exploded throwing debris out to fourteen MU's (420,000 kilometers), this debris field is spread across 28 MU's total in all directions covering around 55,566,000,000,000,000 square kilometers of debris. Half the debris continues to travel away from the blast zone and more on that damage later on in this write up.

For scanning the center of the blast the sensors will have ionization troubles. Divide the damage by 300 and that is the difficulty on scanning the center from 15 MU's distance. This would cause the ship sensor difficulty to increase to 20 but decreases by one as a ship ventures into the center of the debris field. The closer to the debris the difficulty goes down by one per MU distance the ship is into the field with the ship in the center of the field the sensor difficulty is 6. Note: that travel in the debris field will be restricted to below 10,000 kps of travel.

The debris is mostly dust particles and small rocks on the outer edge of the field. The field becomes denser as you venture into the field. Take the damage divide in four and

that is the damage the ships and/or shields take on impact with a rock to the shields. As you move closer the debris becomes larger and more dangerous. A difficulty piloting roll to avoid the debris as it is moving around with energetic movement.

Each year the field expands along the orbital path by 10 MU's in each direction and one in the other directions. After fifty standard years the expansion ceases except along the orbital path except it slows to one MU.

Continuing from above the ejected debris expelled is traveling at half the speed of light and will eventually pass out of the star system. The initial explosion will scramble sensors with an increase of one hundred decreasing out from the blast point by one till the sensors clear nevertheless only lasts three rounds. A ship may not be able to avoid a piece of debris traveling and is figured with ramming rules. Roll 2d6 to determine the size of the debris. Speed 2d6 x 4 + 2 gives the speed in MU's of travel per speed per round. Using the 2d6 to determine size and damage modifier.

2d6	size	Damage modifier
2	1	x .25
3	2	x .5
4	3	x .75
5	4	x 1
6	5	x 1.25
7	6	x 1.5
8	7	x 1.75
9	8	x 2
10	9	x 2.5
11	10	x 3
12	11	x 4

There is also an option where the damage can be determined with size times speed and rolling 2d6 to determine damage such as a ramming.

Reworking the Warp Core Breaches

In Spacedock the Total Catastrophic Failure of the Warp Core breaches (page 98 of the first Spacedock book) has never fully satisfied me. I just did not liked the way it was set up. So here is my solution to the new warp core breach and it is the final evolution of the rules over the years. Our group has almost unanimously agreed to institute the option one and the optional part below as part of our House rules.

(For record; there was one opposition just to be opposed to it believing that nothing should go without opposition, (my girlfriend can be a pain in the butt sometimes) and yes that got me a head slap and a kiss… I guess I will keep her around anyways).

This also works the same in ICON as it does in Spacedock. This is what I came up with, let me know if you like it or not, use it if you want. This can be used in the Star Wars, Battlestar Galactica, Stargate and Gene Roddenberry's Andromeda for they all have similar power systems.

There is also optional version to this intended changes. This also has a version of the self destruct system that Kirk planned to use to destroy V'ger in the Motion Picture. I hope that I covered that in depth.

Option… one

A starship that is running it's warp core at a certain level let's say it is an ageing Miranda class that is just running between planets and not in any combat, the core is running at around 27 percent 106 power. A sudden warp core breach generates twenty times the damage so the 106 power would convert into a destructive explosion of 2110 damage there would be 551 damage to any ship caught in the blast wave of one MU of the explosion. The same Miranda running at full power would cause an even greater explosion of 7800 damage and after the destruction of the ship there would be 6241 to inflict damage to any ship in the same MU.

Now a galaxy class running at 25 percent 156 power just out for a cruise like the Miranda above would cause a blast that is 3120 and then at full power the ship would cause 12,600 damage.

The using a hand phaser or disruptor against the warp core can cause a warp core breach on the highest levels. Use the above calculations and then multiplying them by two. The Miranda class with the destructive level of 2110 would be 4220 of damage and a max power would be 15,600 damage. And this was done on a Renegade Klingon Battle Cruiser by one of the characters in an

alternate universe where he was a trapped prisoner and the only way back was to blow the ship up with the hand phaser.

Option… two

The other option was that the power being generated multiplied by ten and the damage would be just as dangerous. The blast of a galaxy class above at 25 percent would be 1560 damage. That would destroy more than half the ship. This would leave under half the ship as deep space wreckage. This debris would have the same percentage of damage to each and every component that the ship has a whole would have after the explosion. As an example each part would have nearly fifty percent damage to it.

Option… as a self-destruct system

The Matter and Anti-matter are allowed to mix uncontrolled resulting in a massive explosion. This result causes an explosion one hundred fifty times the power normally generated. The uncontrolled Matter and Anti-matter mix would cause a Galaxy class 94,500 damage clearly destroying the ship and killing all that is within the same MU that the ship exploding happens in. There are few shields that can prevent such an offensive assault. The eruption of the Warp core within the V'ger spacecraft would have had devastating results. The V'ger ship would have suffered 67.9 percent damage from this explosion listed here on a version of V'ger that I have generated and likely destroyed the Voyager 6 Probe in the explosion. Such an explosion in the atmosphere or under the surface could cause catastrophic damage to the surface of the planet and poison the atmosphere making it difficult to live on the surface. There would be anti-matter radiation fall out causing d1 damage to the survivors exposed to the radiation. Long term exposure to the radiation would shorten the life span of the subject and cause the survivor to weaken and become susceptible to wounds and sickness. Starfleet medical treatments are effective in the short term but in the long term they lose their effect on the life forms physiology.

This part is optional to the above…

Janeway ran Voyager at least once above one hundred percent when they collapsed an ancient space station being used by the Hirogen species. I generated this from that. For each one percent over 105 percent the difficulty to maintain a warp core integrity difficulty increases by 1 until warp core failure.

There are times when the ship is running its warp core at 110 percent above normal and a this would cause the breach to be thirty time the destructive levels. The core

would be producing 693 power per round and the breach would cause a new destruction of 20,790 damage in the MU. Higher a core runs past one hundred percent causes greater damage. At 101 to 110 percent causes thirty times as much damage and 111 to 120 percent causes forty times as much damage and 121 to 125 percent damage cause fifty time the damage and it the core can handle it 126 to 130 percent will cause sixty time the damage. Anything above 130 percent causes an automatic explosion of one hundred times the destruction.

This running the warp core above the normal also can affect the warp factors a Miranda running at maximum warp would normally be warp factor 9.2 and at 110 percent or better would add .2 of a warp factor increasing the speed to 9.4. This would be the same in The Original Series era as The Next Generation Era and the Enterprise era. For each 5 percent above the 100 percent the ship is capable of adding one 0.1 of a warp factor to its maximum speed. If the warp core is damaged the difficulty starts at five regardless of the percentage being generated in the round and will continue till the core is repaired.

There is an adventure option where the core is somehow automatically increasing power and threatens a Total Catastrophic Warp Core Breach happens. The engineering crew must make repairs to prevent the core breach and shut down the core or at least stabilize it before the breach happens. The one time that we did this the ship was lost however the majority of our ship's crew escaped in escape pods and was clear of the blast zone.

PLANETOID AND PLANET NOTES

The planetoid is a played with scale of the starship spacedock scale beyond size 16. As we did it was decided that any SU's that are available are the vegetation and simple surface structures, we decided that there are no more than 1 - 5 SU's per square Kilometer with a resistance of 1 or less from a weapons hit for vegetations. Any surface structure we used is strictly as is in spacedock terms we have made several structures that are available on the web site here. A city on the surface could easily have several thousand SU's per Square Kilometer of surface area. Generating the planet we still use the FASA Method and have added in the Spacedock for the use of weapons on the surface. For the total SU's of a planet or Planetoid Multiply by diameter 900 trillion to get within close to what the SU's would be. As an example the small planetoid below would have the SU's 532,518,300,000,000,000,000,000 and would require the 2,662,591,500,000,000,000,000 Type II Photon Torpedoes to destroy the entire planetoid. That would be a few more torpedoes than a galaxy-class could carry in a single trip. There are devices that can cause

the total destruction of a planet such as a stellar scale event or an internal explosion equal to the destructive force of a starship self destructing such as a ship the size of Voyager would set off a chain reaction. Or a Doomsday Machine or Planet Killer from the original series with its antiproton beam to slice the planet to pieces. As the Game master I have approved devices the size of a shuttlepod that once detonated will destroy the planet as they are loaded with the detonators similar to that of a dozen photon torpedo warheads and there has to be more than a one hundred laid across the surface of the planet. There was a single weapon that could generate a plasma weapon that could start a total matter conversion weapon that was set to destroy a planet during a mission that was intended to kill one individual .

A vessel caught in the same Mu as the planet when it is destroyed is subjected to a shockwave equal to that of a level 12, one Mu outside of the planets MU is subjected to half the initial blasts shockwave and the next half that and so on. An exploded planet would create a debris field fifteen Mu's across in a sphere shape. After a couple of decades would thin out a little from there stretching into a thirty Mu's long twenty wide and seventeen MU's thick the larger chunks of debris would have broken down into dust or rocks the size of a shuttle craft or smaller yet there may be some debris would still be the size of a Romulan Warbird. The planets moon if not destroyed would have remained intact but all surface facilities would have been destroyed.

A vessel trying to traverse the debris field would require a skillfully good pilot to maneuver around to avoid crashing into another object. If the system is recently been exploded from a planet it will have possibly destructive debris from the exploding that caused the damage to the planet. If the planets break up was based on a weapon such as the Planet Killer there may be special anomalies in the field.

Small Planetoid
Planetary Survey Summary- Class D Planetoid
Diameter: 3824.7 kilometers
Equatorial circumference: 11,600 km
Surface area: 147,921,750 sq. km
Surface SU's: 591,687,000
Surface Resistance: 1
Number of Satellites: none
Planetary Rotation: 48 Hours
Gravity: 0.2 G
Land: 100%
Atmosphere: None
Mineral Content:
Normal Metals: 43%;
Special Minerals: 1%;
Radioactive: 1%;

Gem Stones: 1%;
Industrial Crystals: 1%
Composition: Nickel iron composite with trace elements that are used in the construction of starships. There is a natural vein of Neutronium running through the asteroid that has a higher resistance (250) rating than that of the rest of the asteroid. Sensor scans show there is traces of Dilithium crystals and other mineral that can be mined off the surface.
Notes: Surface is pot marked with small impact of small asteroid hits to the surface with several larger impacts. There is several small sensor anomalies detected when the scan is made but they are not unusual.

Slightly Larger Earth Size Planet (Inhabited by vegetation only)
Planetary Survey Summary- Class "M" Planet
Diameter: 13,130 km
Equatorial circumference: 40,400 km
Surface area: 515,175,750 sq. km
SU's for Surface area: 3,091,054,500
Surface Resistance: 1
Number of Satellites: 1
Planetary Rotation: 25.25 Hours
Gravity: 1.1 G %
Land: 57%
Atmosphere: Thick Climate: Temperate-Cool
Mineral Content:
Normal Metals: 58%;
Special Minerals: 3%;
Radioactive: 27%;
Gem Stones: 78%;
Industrial Crystals: 46%
Composition: Nickel iron composite with trace elements that are used in the construction of starships. There is a natural vein of Neutronium running through the asteroid that has a higher resistance (250) rating than that of the rest of the asteroid. Sensor scans show there is traces of Dilithium crystals and other mineral that can be mined off the surface.
Notes: Surface is nearly an atmospheric match for the Earth and has plenty of vegetation and other life forms spread across the surface. The planet has several large oceans and dozens of inland seas. Planet is geologically active. There are no intelligent life forms detected on the surface at presence. There is ruin's of an ancient structure on the surface that may have been an outpost for some race 10,000 years previous. The planet is relatively young and has entered a jurasic age where there are large dangerous life forms walking much of the surface and swimming the oceans that are several times anything that was found on Earth.

Starfleet has made plans to place an automated sensor station on the surface but has not done so as of yet.

Daystrom Science Institute has made inquires about placing a research station on the surface of the planet. It will be a typical class alpha research station. On the southern content there is the remains of a wrecked starship that has been explored and has little to offer other than shelter.

STAR TREK
ENTERPRISE
Series Spacedock notes

The ENTERPRISE SOARCEBOOK the first season by Volker Maiwald of www.farrealms.de inspired the creation of the notes that I generated for the spacedock and Steve Long's work creating the original Spacedock notes. The Enterprise NX-01 being one of the first Earth vessels that ventures beyond the frontier beyond the confines of the solar systems. Continuing to generate greater and more elaborate starships and delving into the Enterprise Era stories of greater adventure than those of TOS, TNG, DS9 or Voyager era's. The early Earth starships are so lightly armed in comparison to the future warships of the Federation and alien empires to come.

I know I am not the first to generate an NX-class starship in the spacedock format but I took time looking to the series making notes in generating the ship. The ships of the 22nd century are limited and have lower SU's to most of the ship. Much of the galaxy has only just begun traveling and the new kid on the block is the Terran Starfleet.

These are the notes that I made for the Enterprise Era adventure that involved the Klingon's Empire. I thought that the notes would be interesting to others who are either running or planning an adventure. There are something's that I have not used in these notes, but these are the original outline for notes I have been using.

I have upgraded the notes as of last week's episodes of Enterprise. These were not the notes I used for the adventure as I made the adventure a pre-Enterprise era adventure.

These notes were made before I began generating vessels for the 22nd Century adventure before going to over to the Klingon as the main species in the Series.

Some of these are not even used or changed in the Series.

The additional notes that are listed in the document is that the NX-class starship is only slightly more advanced than those in the Pre-Enterprise Era. The vessels for the mid 22nd century are only slightly more advanced.

As time goes on I will add notes and starships as the adventure coninues in the RPG, TV and novels of the series. Even as the series has ended I can see the series could have went on serveral seasons if given the chance to develop other series.

NOTES FOR ENTERPRISE ERA'S SPACEDOCK

Not all of the ratings are equal, as it has only been a few years sense Zefrem Cochrane made his warp ship's first flight. The warp five projects is under way. Nearly all Earth vessels are under equipped in comparison to Vulcan, Klingon and Andorian vessels. *Some alien species of vessels are better equipped and over gunned compared to that even the Klingon vessels. Terran Vessels are less than 25% of SU's equipped with weapons as the Vulcan are 30% equipped and the Klingon and Andorians are 40% equipped with weapons. This will include the shielding and protection of whatever nature it is and all its weapons systems. The exception to this is the NX-class Cruiser with its 26.7% of weapons as it is the first Warship that the Humans have made. The Romulans are still a mystery and they will likely have weapons equal to that of the Klingons or more than likely the Vulcans their distant cousins.*

(Personally I like to keep the starship weapons systems under fifty percent of that even in the 24th century unless the starship is specially designed and constructed to fight against the specific foe. In the Enterprise Era the ships are constructed with the lack of knowledge of what could be encountered out beyond the confines of their own system.)

The Enterprise Era only a few species have reached the space travel levels of technology and if it is warp capable is even slimmer. The use of conventional rocket launchers and projectile weapons are fired instead of energy weapons doing far less damage weapons.

Size: The vessel of the 22nd century are smaller than the average ship of the 23rd century and the 24th century starships of the Federation. Some smaller vessels can travel higher warp speeds at greater distance.

The average largest average size of a starship vessel is that of a size 5 for most species have not extremely advanced starship designs beyond this size. The majority of the species are just entering their early transportation day's space travel.

The Vulcan's have a few vessels as large as a size 6 starship. The Vulcan Combat vessels *(size 8)* are capable of handling a Klingon (early D7 variant) battle cruiser.

Some species have settled for a vessel the size 3 of the vessel with weapons capable of damaging a vessel two sizes higher with little trouble. Orioins and Naussicans have build their vessels around this as they are mass preproduction and has large fleets used for raiding. The Orions and the Naussicans have constructed the vessel with the size of the ships with small scale raiding vessel sizes in mind.

Starfleet has several designs and vessels at their disposal and the NX-Class is the most advanced designed in the service. Although the future designs are already on the drawing boards with advanced designs and new technology there is always with a leaner and meaner vessel already out on the street. The older Intrepid-class a prototype cruiser is as advanced with the exception of the warp drive.

A few civilian companies have constructed a few mining and merchant vessels to size 7 or larger but are lightly armed. The average vessel is the size four and are lighter armed and shielded in the convention of the fleets are lighter warships.

SU's: The SU's are lower in scale and reduced to the levels near the bottom end of all scales. Just over half the full SU's available for most species in the Enterprise era. Generally 60% *(or less)* of the available SU's available for use on the average vessel.

As an example the NX-class has a 606 Su's used with an optional 800 Su's available. This gives the vessel a good base of use and the power to defend the ship against hostile activity.

The Mirror universe's version of the Tarran Empire's NX-class Starship is better armed than those of the Terrain Starfleet Universe. The weapons are stronger than that of the conventional and are more advanced as there is another dozen or more years of advancement that is in the construction of them.

The Xindi fleet of warships are well armed and shielded and are closer to the 23rd century levels of weapons and shielding than that of the Terrain Starfleet. The Xindi fleet's Faster Than Light Drive is closer to that of the Slip stream drive than that of the Warp Drive. The only difference in the 24th century and the 22nd century version of slipstream is that the SU's cost 120 other than 80 and is half as fast using the same amount of power.

Resistance: During this era, the hull resistance has no free SU's available. Resistance costs lowering the resistance down to a maximum of 6 per hull. Klingon vessels can have as high as eight where as Earth Vessels would have four as maximum. During this era the Vulcan's have a maximum of six for their largest and newest Klingon cruiser.

There are several vessels known to space fairing species that has a hull resistance of 10 per hull. Even the Borg Vessels of this time period would not have the hull rating any higher than that of 15 or 16.

The NX-Class has a total of 4 resistance (2 per hull) and the Intrepid-class has a resistance of 3. While the Vulcan's will have the advanced hulls of 5 or 6.

Structural Integrity fields: To this I restricted our constructions down to below Class D on the TOS Spacedock for all vessels before 2150 for all species vessels.

Crews: A ship's crew is usually smaller and have less security officer and science technicians staffing. Engineering staff is usually double that of later vessels and have the need to repair a vessel that has been extensively damaged and in later centuries is toed to a space dock for repairs.

During the Enterprise's third year the addition of the Maco's as a military threat to the Xindi military. The NX-Class outfitted with twenty Maco soldiers in addition to the standard Starfleet crews. Later vessels would have the increased capacity for the Macos of around thirty or more soldiers.

The Earth ships do not appeared to be able to carry more crew and passengers about half of those generated by the Spacedock The Original Series Manual. Much of the Earth starships are based around the ships engines and exploration systems of the vessels.

Crew Quarters: There are few luxuries for crews their quarters on a ship are generally the little that they get. Do to the ships have yet to have crews substantially larger Barracks have yet to be installed on Earth ships. Only the Klingon's use them on their larger vessel possibly the predecessor to the D7 Battle cruiser of the 23rd century.

On earth vessels the crew they are assigned to quarters and a few lower ranked enlisted have to share their quarters with another.

With the addition of the Maco's the ships would have the Barracks installed for the Maco soldiers.

During the Xindi confontation the Tarran Starfleet of starships were outfitted at the commanding officers wishes with barracks with twenty to forty Maco soldiers.

Very few of the Earth ships have few of the elborate luxury or unusual quarters to the ship. these ships are not quite the future of the Federation as of yet but will defentanly begin to promise to the future of the Federation.

Manufacturing No Food Processors, but usually have a galley and mess hall that is Spartan in nature, the ships of the 22nd Century are restricted to Nutrient paste systems and Food Stores only. The Enterprise has a Galley next to the eating facility. The ship's galley is capable preparing a multitude of food dishes. The mess hall is capable of handling the entire crew of the vessel at the same time if it came to it.

Most species have a galley and large abundant food storage. Klingon ships often carry live Targs for food and

pets in the galley or cargo bays. The Vulcan's have a food synthesizer that are the predecessor to the TOS era food processors and the replicators.

Some species have already created replicator systems but guard the technology very closely, as it is a key to their statues and power in the region. The Vulcans have already began to experiment with the replicator systems.

Machining shops: Unlike the 23rd century industrial Fabrication Units and 24th century industrial replicators to do not have the easy to create tools and equipment for the ship. Instead of Industrial Fabrication Units the majority have machining shops that can create the equipment that is needed for a starship. Use the science lab chart to create the machining shops. Most ships have at least one shop of some sort small shops cost size x 1 SU's and 1 power per round and large shops 3 SU's per shop and 2 power per round. These shops are usually used for manufacturing replacement parts for the ship. It takes 5 minute to make a 1 SU of part for the ship or parts to the ship for replacement if there is no part in storage. Note there are some parts that cannot be made without being in a dry dock facility of some sort.

Medical systems: During this era only Humans and Vulcan's readily out fit their vessels with sickbays and carries Medical personnel. A size four is the top of the line medical bays.

Klingon vessels are rarely equipped with medical facilities. Many of the smallest Klingon vessels they don't even have a bay where they could lay out the wounded or dying warriors.

Starfleet has the medical facilities of a rating 4. Earth ships are restricted to medical facilities of rating 4 or less till the 2270's when they are allowed to follow the Spacedock Manual.

Recreation Facilities: Most vessels have small and Spartan recreation facilities in nature if any. The Tarran Starfleet NX-class has a Spartan mess hall and gym. The mess does double duty as a movie theater on the NX-class as the shuttle bay a sports arena. The NX-Class has a rating of no more than 2 and are restricted to that or less for earth ships.

The alien vessels could have any level technology for recreation in the crews. This includes the holodecks and other entertainment facilities.

Fire suppression systems: Species who have shielding technology will have fire suppression abilities build into

their ships. Those who don't have to have personnel using hand held fire-extinguishing equipment.

Escape Pods: Some species of this era have Escape pods and vehicles for such uses. The majority of vessels have the escape pods installed into them for the safety of the crewmembers.

*Escape pods are not a necessity but most species do have escape pods installed in the vessels as they do wish to survive the disaster that would likely destroy their vessels. The **Mirror universe's** Tarran Empire and the Klingon Empire has installed escape pods on the NX-class and possibly other classes of ships as well.*

Nacelles: This is where things get difficult. The lowest of space dock nacelles for let's say an intrepid class is not close but using multiple Uprating to adjust looks funny but works.

Restrict all warp nacelles for the Tarran Starfleet to Mark 1 up to Mark 3.5C on the TOS Spacedock sheet.

Even the Klingon vessels are not much faster than the Earth vessels. No ones vessel can go faster than that of warp six as maximum.

No species in the 22nd Century has a nacelle better than Mark 3.5A including the Vulcans.

Plasma Injectors: Restricting injectors above Class C is simply sensible. I don't imagine a vessel from a world just setting out on space travel to be able to spend six hours at maximum warp travel. *The rest of the species are restricted to below a Class D for all species and below Class C for the Tarran Starfleet.*

Impulse Engines: Generally Types 1 to 3A are better looking for twenty-second century with type 1 for a shuttlepod.

Auxiliary Bridges: During this era, auxiliary bridges and battle bridges have yet to be including into the ship designs. Few species have the installation of Auxiliary bridges and are optional on all other vessels including the Terrain Starfleet and Empire.

Computers: The 22nd century's computers are slower and less advanced yet still make our present day PC's look like a toaster. I have been using .5 x size with 2 power per round. *The computers have no upratings. The computer systems are automatically given a difficulty rating of -1 even before the difficulty of the game starts.*

Autopilot: 22nd century Autopilot is generally lowest scaling in design. Shipboard Systems (Flight Control) 1, Coordination 1 with a 2 Power/round in use.

Navigational Computer: The 22nd century has only the Class 1 for the highest for all species. The early human have a lower navigational computer.

Communications: Lower the species technological level the lower their ability to communicate with their home systems. *Cilillian vessels are restricted to type I and the military vessels are generally type II or III. The most advanced communications system belonging to the Terrain Starfleet is a Type II communications system.*
Some species have Universal Translators and other have not. Some species just do not care about what other species have to say to another species.
Communications range is restricted but with a subspace booster satellite placed along the path the ship has taken the ships communications is aided by extending the range.

Tractor beams: The Vulcan's, Klingon's, Andorians and a few other species have tractor beams while humans have yet to discover them. Tractor beams are a relatively new invention to the galaxy. Human starships use the Magnetic grappler systems. Use the scale of alpha 1 km scale on Class Alpha as the grappler makes their pulling.
The Vulcan's have Class Alpha Tractor Beams and have 1000 km range.

Transporters: A few species employ transporters and use them for personnel transportation. Vulcan's, Klingon's, Orion's and Human's have transporters installed aboard ships and use them for cargo have bio upgrading for transports of living personnel.
In this era one transporter per ship it is usually a combination of a cargo and personnel transporters. Other older transporters can have upratings to handle most biological substances. The standard upratings for cargo transporters to handle biological substances costs 2 SU's plus the personnel members SU's.
Generating the Transporter into a single usnite costs the power and the SU's of both the cargo and personel transporter as well and uses only one Energizing/Transition Coil in the generation.

Cloaking Devices: The Romulans, Suliban and a few other species, employ cloaking devices. The Romulans are notorious for their employing cloaking devices even in their minefields.

The Romulans have created a holographic hull emitters that can project the image of another vessel, fooling another vessels sensors into detecting another vessel entirely. The Romulan vessel has a highly effective cloaking device.
Yet, there are a few other species with the technology to cloak their vessels as the Romulans and Suliban can do.
The Romulan's have invented the holographic cloaking devices to represent another species space vessels. Although the cloaking device can hide the Romulan vessels appearance as another the power systems is still identifiable as a Romulan vessel if it can be detected. The Mirror Universe's Terran Empire have gotten their hands of several Suliban Cloaking devices and have employed them in several different incidents.

Internal Force Fields: during this era few species have integrated the force fields for the vessels. *Starfleet starships have locking bulkhead doors that require the crew to access with a code and turn a locking handle. (Note that Liutenant Malcom Reed of the Tarrain Starship Enterprise has cnstruced the first prototype in the 22nd centiury, that held a stable field.)*
Earth ships have internal Bulkhead doors costing size and 1 power per round. These doors can handle explosive decompression as long as they are not previously damaged.

Tactical Systems:
Energy weapons in general: In this era the energy weapons generally can fire at basics. At the lower levels of these weapons you get one shot only per weapon. I came up with if you want another shot for your ships weapons systems you must have an upgraded weapons system. To this I had to come up with a penalty of sorts by adding half again the energy weapons final size onto the weapon's SU's to gain the second shot. This weapon's up grade is just for the energy weapons only. And only adds one shot to the single shot weapon as it is. This increases the dangers at the basic levels.
The weapons are generally the know version but the exotic has been constructed be a very few species. The Orion's have constructed a weapon that destabilizes the ship and causes it to fall from warp speed and beam the cargo from the ships. All the weapons ranges are 20% that of the 23rd century vessels and have fewer shots than their predecessors.

Plasma Cannons: Using TOS era's laser table the plasma cannons are basically Lasers that are mounted on the ships exteriors. Fellow general weapons construction routine. The Humans using the Plasma Weapons would

be perfect for the ship. *Most Starfleet vessels have a number of these weapons and have been using them as a main battle weapon against the threats to their vessels.*

Plasma Cannons are weak and limited in there use as weapons but are a step to more powerful weapons that are in development.

Refer to the weapons chart farther back in this document found on the internet Trekrpg.net forum pages about the generation of weapons.

Phase Cannons: Phase cannons are the predecessors to the phaser with less functional weapons. They can fire only in the continuous beams with the ability to rotate and retract back into the hull of the ship for maintenance and storage. By 2151 there is only a single type of Phase Cannon being used the phase cannon is equal to that of a Class three phaser bank.

The phase cannons can fire only twice.

Starfleet Phase cannon weapons have begun to replace the Plasma weapons and are far more powerful than the previous weapons. The phase cannons are turret mounted with plenty of weapons arc per weapon. These weapons can be fired in linked fire or independent bursts with each other. The NX-class can sported three phase cannons in the beginning and then have additional weapons located at key points about the ship later in it's time in service. The NX-Class is Earths most powerful warship with the development of the warp five engine.

Even though the Terrain Starfleet usually install all their weapons systems in spacedock or repair stations. The Enterprise installed three phase cannons without the assistance of a space station or specialized personnel to do so. The starship carries all the manufacturing facilities that are needed to construct a weapons system.

Compared to that of the Plasma Cannons the Phase Cannons are far more powerful and destructive. A single blast of a phase cannon can level a mountains and re-arrange a planetary content with orbital bombardments with efficacy.

Phase Cannons are restricted to two shots per round and only a single shot on over load settings.

Refer to the weapons chart farther back in this document found on the internet Trekrpg.net forum pages about the generation of weapons.

Disruptor weapons: Restrict disruptors to below type 4 *(type 2)* to these era vessels, as it will give the enemy a superior firepower without devastating the other vessels fired on. The disruptor cannons and arrays are no higher than that of the Photon Torpedoes of this period.

Like the Phase cannons the Disruptors are rather new to the fleets of the galaxy and have the increased power and fire that of the phase cannons. Although the disruptor weapons have begun to show the more destructive nature of the weapons. Even though some of the Xindi vessels (reptilian and insectoid species) sport a type 5 disruptor weapons system they are better armed than the vessels.

Refer to the weapons chart farther back in this document found on the internet Trekrpg.net forum pages about the generation of weapons.

Spatial Torpedoes: Like the later photon torpedoes self-guided to a range of 50,000 km doing damage of 70 *(80)* and launchers using 6 powers to fire +1 power per torpedo. The launchers are capable of firing only a single torpedo per launcher. The simple torpedoes weapons range (10/30,000/100,000/300,000) *(corrected 2/5,000/16,000/50,000)*. The Klingon cruisers have weapons the capability of firing a spread of two torpedoes.

Refer to the weapons chart farther back in this document found on the internet Trekrpg.net forum pages about the generation of weapons.

Photon Torpedoes (or known as Photonic Torpedoes): Although Photon Torpedoes are new to some species others have yet to employ them or even research them. *Photonic Torpedoes are primitive versions of standard Type I Photon Torpedoes used by Starfleet in the 23rd century.*

Klingon's have them and humans employ them by 2153. The Vulcan's, Andorians, and others have yet to employ them to their ships.

The maximum range of the Photonic torpedoes is double of spatial torpedoes.

The standard for a Photon torpedo damage is 120 for this era yet the Terrain Photonic Torpedoes are rated for damage of 140 *(120)*. Like the photon torpedoes of later eras the torpedoes are variable yield.

Most species are just designing these weapons as they are the next generation of weapons for the defense of their worlds.

Refer to the weapons chart farther back in this document found on the internet Trekrpg.net forum pages about the generation of weapons.

Standard Shields: Vessels of this era have standard shields and either no grid type increasing protection if they do is the Type A for most species. *The polarized hull plating is similar to that of the shields in some aspect but not here.* *Shields are limited to class one shield generators.*

Polarized Hull Plating: Build like standard shields but burns off like ablative armor with a threshold removed, until gone until recharged or reset. Disruptors and Phase

cannons act to the same as standard weapons. Kept low to show vulnerability.

When launched the NX-01 had the protection of 150 (100) at maximum protection. The refit in the second year of service the Polarized Hull Plating is upgraded to 200 (120) point of protection. The third refit, after the Xindi incident the rating in the polarized hull-plating rose to 250 (150) points.

Deflector Shielding: Many species have standard energy shielding and deflector screens of some sort. The Most have shielding in the class 1 rating below 120 to 200 (75 to 100).

Larger ships of some more advanced species have the Class 2 rating up to 300 (200) points of shielding.

More advanced starships of vessels can have shields that are more advanced than that of the Enterprise era but not to far above that of the Enterprise Era as it would throw the balance off and destroy the game.

Do to the Temporal War the Xindi Starfleet have access to shielding of a Class 3 rating. This making the Xindi fleet of ships the most powerful in the known universe. A few ships have the top-level shields that leave the ship nearly impenetrable to weapons fired at it.

Auxiliary spacecraft: Shuttles are generally size one in scale and the military vessels are the only vessels carrying a pair and freighter carry a single or none. (The NX-class and other explorer type vessels are equipped with two or more spaces for shuttles. The shuttles of this period mostly do not have warp drive capabilities. Most shuttles have the capability to carry the crew and five or six passengers. Yet there are some size 2 ships that are low warp capable and lightly armed.) There are a few ships that carry more than two shuttles and the NX-class has the capability of carrying four shuttles. The Xindi Aquadic Vessels are capable of carrying a starship the size of a NX-class starship in its belly cargo-shuttle bays.

Star Trek Wars Conversion

When I took a look at the Star Trek Wars sheets there was a plenty of costs and such as Point Value, Warp Delay, Maneuvering specs, Combat Stats (with fwd/Aft

Creating Ships in the Pre-TOS ERA
Okay, to be 100% honest, I have no idea what I am doing. I have always loved the beginning of the Federation time period. So here is my first attempt to adapt some Spacedock rules and charts for constructing ships for this period. This is just my humble try at adapting some things to Steve Long's incredible work. Some of my material is based on the FASA supplement on the Romulan War (Chris Stansbury has adjusted my work to fit the information developed in the Starfleet Museum section of

Defenses, Starboard/Port defense) that I could use in addition of the Hanger and weapon placements (in addition to the type).

For the difference in the system such as the weapons systems or what ever the system I would set one vessel as a standard. I balanced the others out against it with the difference in the weapons coming up with a percentage of change.

I used this as a guide not as a rock hard version but a balance. If the change was too high I just balanced it out with common sense.

Common sense is a key to the construction to all starship construction. These are my key stone rule for construction.

http://www.planetside.firenebula.com

The Borg

The Borg have traveled to the 21st century and been stopped by the crew of the Enterprise-E from the 24th century. The determination of whether the Borg are from the future or have been stranded in the past utilizing the technology to construct more advanced equipment. Their objective is the same as that of the 24th century Borg is to assimilate beneficial species. The un-organized nature of the galaxy at the point of the 22nd century is a Borg's perfect target. The Borg can modify the ships with their knowledge of technological advancements. They must build on the technology that they have available increasing its ability. See the notes on Borg Starship Assimilation in Borg Spacedock notes.

This makes the Characters to work harder at defeating the technology that the Borg have been brought back in time with their knowledge of future tech. The transported Borg operate under the same rules that are in the Star Trek Voyager sourcebook written by from THE STAR TREK VOYAGER SOARCEBOOK by Volker Maiwald of www.farrealms.de

The Borg can be a destructive influence on the Alpha and Beta Quadrants.

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ex-astris-scientia . In other parts, I have just tried to guess at what might be appropriate. In general, I have assumed that the ships of this time are at least three times as primitive as current vessels. I most certainly invite criticism (be gentle) and any changes that might make it easier for all of us to create ships from the mid -2100's. Like many of us, I am also patiently awaiting Steve's TOS SRM! I will be placing a few Federation and Romulan ships up in a few days.

The way this works:
-Just follow Spacedock as usual, but refer to these special details when they are applicable. I would suggest using the lowest number of SU's for each size. It might be even better to try and use 3/4 of the minimum SU's for each size. Resistance of 1 for shuttlecraft - resistance of 2 for starships.

Structural Integrity Fields

Type	SU Cost	Protection
Type I	6 + Size	10 / 20
Type II	8 + Size	20 / 30
Type III	10 + Size	30 / 50

Nacelle Table

Type	SU Cost	Speeds (.365 SU per warp point)
Type I	10	1.0 / 1.5 / 2.0
Type II	15	1.0 / 2.5 / 3.0
Type III	20	1.5 / 3.0 / 3.5
Type IV	25	2.0 / 3.0 / 3.5
Type V	30	2.5 / 3.0 / 3.5
Type VI	35	2.5 / 3.0 / 4.0
Type VII	40	2.5 / 3.5 / 4.5
Type VIII	45	3.0 / 3.5 / 4.5
Type IX	50	3.0 / 3.5 / 5.0
Type X	55	3.0 / 4.0 / 5.0
Type XI	60	3.5 / 4.0 / 5.0
Type XII	65	3.5 / 4.5 / 5.0

Plasma Injector System

Type	SU Cost	Duration at Max Warp
Type I	2	4 Hours
Type II	4	6 Hours
Type III	6	8 Hours

Chemical Impulse Drives (for very small, sub-light craft)
These drives make them the fastest things at sub-light. However, their duration at such speeds is very limited. Such craft powered by chemical impulse drives would need to be stationed where they could receive constant maintenance and refueling.

Type	SU Cost	Maximum Speed
Type I	5	.45c
Type II	10	.65c
Type III	15	.75c

Fuel for Chemical Impulse Drives

Duration at Maximum Speed	SU Cost
2 hours	10
4 hours	15
6 hours	20

Fusion Impulse Drives (For use on starships)

Type	SU Cost	Maximum Speed	Power
Type I	5	.10c / .20c	6
Type II	10	.10c. / .20c	12
Type III	15	.25c / .35c	8
Type IV	20	.25c / .35c	16
Type V	25	.30c / .35c	12
Type VI	30	.30c / .35c	20

Warp Drive Systems

Type	SU Cost	Power Generated
Type I	20	10-99
Type II	30	100-149
Type III	40	150-199

Emergency Power System

Type	SU Cost	Power Generated
Type I	5	5 power / round
Type II	10	10 power / round
Type III	15	15 power / round
Type IV	20	20 power / round

Long-Range Sensors
Type (SU Cost)
Type I (1) High Resolution: 1 light year (.25/.26-.50/.51-.75/.76-1.0)
Low Resolution: 4 light years (1/1.1-2/2.1-3.0/3.1-4.0)
Type II (2) High Resolution: 2 light years (.5/.6-1.0/1.1-1.5/1.6-2.0)
Low Resolution: 6 light years (1/1.1-2.5/2.6-4.0/4.1-6.0)
Type III(3) High Resolution: 3 light years (.5/.6.1.0/1.1-2.0/2.1-3.0)
Low Resolution: 8 light years (1/1.1-2.5/2.6-5.0/5.1-8.0)

Beam Weapons
*I am pretty sure that Scotty "charged" up phaser banks in TOS.
In STTMP, it was announced that the phasers take power directly from the warp drive now (when they went into the wormhole). I don't know how to account for this in the Spacedock supplement. I have used the first three lasers from Spacedock, but I have reduced their range.

Lasers (Particle Beams)
-All are only capable of: 1 Shot Per Round
Standard Firing Mode.

Type	SU		Damage	Range
Type I	2	20		5/10,000/30,000/100,000
Type II	4	40		5/10,000/30,000/100,000
Type III	6	60		5/10,000/30,000/100,000

Targeting systems

Type	SU	Accuracy
Type I Accuracy	0	6/7/9/12
Type II Accuracy	2	5/6/8/11
Type III Accuracy	3	4/5/7/10

Disruptors
-All are only capable of 2 Shots Per Round
Standard Firing Mode Only.

Type	SU	Cost	Damage Range
Type I	2	20	3/7,000/20,000/70,000
Type II	4	40	3/7,000/20,000/70,000
Type III	6	60	3/7,000/20,000/70,000

Targeting systems

Type	SU	Accuracy
Type I Accuracy	0	6/7/9/12
Type II Accuracy	2	5/6/8/11
Type III Accuracy	3	4/5/7/10

Missile Weapons

-Apparently, fans are not exactly of one mind whether the Federation has some sort of Photon Torpedoes during this time period. So, I have put together a chart for a primitive type of Torpedo Launcher and another for rockets / missiles.

Rockets / missiles should be faster than the fusion impulse drives that starships use. However, their accuracy is less than that of Photon Torpedoes. As a compensation, rockets / missiles can often pack a much greater wallop.

Type of Launch Tube	Spread	SU Cost	Power Cost
Small Missiles	3	5	1 power / rocket fired
Medium Missiles	2	5	3 power / rocket fired
Large Missiles	1	15	6 power / rocket fired

Special rules for Large Missiles

Large Missiles can also be magnetically attached to the hull of some ships. Thus, many ships will not have large missile launchers. It takes three rounds for a missile so attached to a vessel to really get going. Therefore, it is most vulnerable during these three rounds. A large missile can be considered a size 1 ship with a resistance of 1. If the firing ship receives sufficient damage while the missile is in flight, the weapons officer must make a challenging roll to keep it on target.

Type missile # / SU Cost / Damage / Accuracy
Small Missiles 12 rockets / 1 SU / Damage 10 / 6/7/9/12
5/15,000/35,000/50,000
Medium Missiles 4 rockets / 1 SU / Damage 35 / 5/6/8/11
10/30,000/70,000/100,000
Large Missiles 1 rocket / 10 SU / Damage 80 / 4/5/7/10
15/60,000/140,000/200,000

Primitive Photon Torpedo Launcher

SU Cost: 5
Power: 5 Power / Torpedo Fired
Range: 10/20,000/60,000/200,000
Accuracy: 5/6/8/11
*Damage: 120**
*Primitive photon torpedoes can travel up to warp 1.0 for duration of their range.
* My addition to the explosive yield

Deflector Shields

The assumption here is that they are a very new technology and not very efficient. Let's say that in this primitive era "shields are shields" - no need for details on shield grids. Why don't we also say that Standard Federation shields recharge in 60 seconds (12 rounds)? There are no backup deflector shields. Because they are a new technology, I think they should cost a substantial amount of SU in this period.

Type: Type 1
Protection: 10-100
SU Cost 1 x Size (+1 SU for every 10 points of protection above 10) Threshold: .33 of maximum Shield Protection (round up)

Single Use Warp Engines (& Nacelles)

For ships that use single-use warp engines/drives (like the Romulans and Andorians of that time period), two things need to be done. First, these ships do not "purchase standard nacelles, warp drive, or a Plasma Injector System. Single use warp nacelles/drives do not provide power to the ship – only warp speed. These ships do need additional hull modifications to accommodate a "disposable" warp nacelle. Secondly, they must choose the type of single use warp drive.

Single-Use Warp Drive/Nacelle

Type	Outer Hull SU's	Warp Speed
I	4 x Size	1.0 / 3.0
II	6 x Size	1.0 / 5.0
III	8 x Size	1.0 / 7.0

PLASMA CANNONS

Type I
Range: 2/3/4/6
Damage: 20
Power: [2]
Shots per Round: up to 1
SU: 2
Developed: 2072

Type II
Range: 3/4/6/8
Damage: 30
Power: [3]
Shots per Round: up to 2
SU: 2
Developed: 2102

Type III
Range: 4/6/8/9
Damage: 40
Power: [4]
Shots per Round: up to 3
SU: 3
Developed: 2130

Phase Cannons

Type I
Range: 4/20,000/50,000/150,000
Damage: 100
Power: [10]
Shots per Round: up to 2
SU: 6
Developed: 2150

Type IA
Range: 2/6/9/24
Damage: 60
Power: [6]
Shots per Round: up to 2
SU: 2
Developed: 2150

Type II
Range: 5/25,000/60,000/200,000
Damage: 100
Power: [10]
Shots per Round: up to 2
SU: 8
Developed: 2154

Type III
Range: 6/25,000/75,000/225,000
Damage: 120
Power: [12]
Shots per Round: up to 2
SU: 10
Developed: 2156

PHASED ENERGY BANKS

Type I
Range: 6/25,000/75,000/250,000
Damage: 120
Power: [12]
Shots per Round: up to 2
SU: 10
Developed: 2156

Type II
Range: 7/25,000/80,000/250,000
Damage: 120
Power: [8]
Shots per Round: up to 2
SU: 8
Developed: 2158

Type IIA
Range: 4/9/18/40
Damage: 80
Power: [8]
Shots per Round: up to 2
SU: 2
Developed: 2160

Type III
Range: 8/26,000/80,000/250,000
Damage: 140
Power: [14]
Shots per Round: up to 2
SU: 10
Developed: 2159

Type IV
Range: 8/27,000/80,000/250,000
Damage: 100
Power: [10]
Shots per Round: up to 2
SU: 8
Developed: 2160

Type V
Range: 8/27,000/80,000/260,000
Damage: 120
Power: [12]
Shots per Round: up to 2
SU: 8
Developed: 2168

Type VI
Range: 8/28,000/80,000/260,000
Damage: 140
Power: [12]
Shots per Round: up to 2

SU: 12
Developed: 2170

PHASED BANKS

Type I
Range: 8/27,000/80,000/250,000
Damage: 120
Power: [12]
Shots per Round: up to 2
SU: 6
Developed: 2178

Type II
Range: 8/27,000/80,000/225,000
Damage: 100
Power: [10]
Shots per Round: up to 2
SU: 6
Developed: 2180

Type III
Range: 9/28,000/80,000/260,000
Damage: 140
Power: [14]
Shots per Round: up to 3
SU: 14
Developed: 2192

Type IV
Range: 9/29,000/90,000/280,000
Damage: 150
Power: [15]
Shots per Round: up to 3
SU: 16
Developed: 2199

SPATIAL TORPEDOES

Type I
Range: 3/4/5/6
Damage: 20
Power: [10]
SU: 1 per 4 torpedoes
Developed: 2064

Type II
Range: 3/5/6/8
Damage: 50
Power: [15]
SU: 1 per 4 torpedoes
Developed: 2112

Type III
Range: 4/6/9/16
Damage: 60
Power: [20]
SU: 1 per 4 torpedoes
Developed: 2126

Type IV
Range: 4/6/9/22
Damage: 80
Power: [20]
SU: 1 per 4 torpedoes
Developed: 2160

Photonic Torpedoes: Use Type Is from Spacedock Maximum Spread
2064: 1
2182: 2
2190: 3

VULCAN PLASMA CANNONS

Type I
Range: 4/16,000/30,000/125,000
Damage: 40
Power: [6]
Shots per Round: 2
SUs: 4
Developed: 820

Type II
Range: 6/20,000/50,000/150,000
Damage: 80
Power: [8]
Shots per Round: 2
SUs: 6
Developed: 2056

Type III
Range: 7/25,000/75,000/175,000
Damage: 100
Power: [10]
Shots per Round: 2
SUs: 8
Developed: 2116

Type IV
Range: 8/25,000/75,000/225,000
Damage: 120
Power: [12]
Shots per Round: 3
SUs: 6
Developed: 2123

Type V
Range: 8/27,000/75,000/250,000
Damage: 120
Power: [12]
Shots per Round: 3
SUs: 8
Developed: 2132