

TRAVELLER



Book 2: High Guard

Guardians of the Spacelanes

TRAVELLER

High Guard

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INTRODUCTION

Welcome to *High Guard*.

This book is concerned with the navy: its people and its ships. Just as the seafarers of old were intrinsically linked with the vessels they sailed – be they tall-masted sailing ships or nuclear-powered aircraft carriers – so too are the naval personnel of the Imperium. The navy's purpose is to safeguard the Imperium's interests at the system and interstellar levels; *High Guard* details this role in three ways:

- Expanded character creation. *High Guard* takes the basics of generating a naval character and vastly expands the system to allow characters to specialise across various disciplines reflecting the navy's structure. As characters progress through this expanded character generation system, they will become equipped with skills and life experiences that truly reflect the rigours of a naval career.
- Expanded ship construction. Using the core starship construction rules, *High Guard* offers greater depth for starship design with more options, larger hulls, more powerful weapons, and a deeper level of complexity to allow the construction of ships ranging from small, system-confined vessels up to the immense Capital Ships – fighting vessels displacing many thousands of tons and equipped with the most advanced weaponry and defensive capabilities.
- Expanded space combat. With more options and more powerful weapons, *High Guard* reflects on space combat and provides a more detailed system allowing Referees to plan epic space battles (from fighter dogfights up to the clash of heavily armed Capital Battleships) and for characters to take part in them.

High Guard is organised into the following chapters.

Chapter One: Naval Characters
Chapter Two: Expanded Ship Construction
Chapter Three: Small Craft Design
Chapter Four: Capital Ship Design
Chapter Five: Expanded Space Combat
Chapter Six: Sample Small Craft
Chapter Seven: Sample Capital Ships
Chapter Eight: Naval Adventures

THE IMPERIAL NAVY

The force that rules the space between the stars controls both transportation and communication, and as a result, controls all intercourse between worlds. The instrument of such control is the Navy.

An interstellar community operates under many unique restrictions, most notably the fact that it consists of many island-planets set

in an ocean of vacuum. Such a society must control that ocean. Its instrument is the Navy. *Traveller* assumes a remote centralized government (referred to in this volume as the Imperium) possessed of great industrial and technological might; but due to the sheer distances and travel times involved within its star-spanning realm, the Imperium is unable to be everywhere at once. As a result, the Imperium allows a large degree of autonomy to its subject worlds, calling only for some respect for its overall policies, and for a united front against outside pressures.

To monitor the space lanes, the Imperium maintains a Navy. Because these forces can never be everywhere at once, local provinces (subsectors) also maintain navies, as do individual worlds. This three tiered structure of Imperial, subsector, and planetary navies produces a flexible system for patrolling space, while putting the limited resources of the Imperium to best use. *High Guard* deals with the navies of the Imperium, of subsectors, and of worlds.

The sheer size of the Imperium precludes the navy from concentrating its forces in one place – if war broke out on one border of the Imperium, it would be months before news reached the capital, and long months more before the navy could respond. Instead, there are one or more Imperial fleets for each sector, named for that sector. The Imperial navy is the tool of diplomacy and conquest as needs dictate, the Emperor's own sabre.

The Imperial Navy has the largest and most powerful vessels in space – dreadnoughts, battle tenders and other mighty warships.

SUBSECTOR NAVIES

Each subsector maintains its own fleet of ships, composed normally of cruisers, escorts, frigates and medium-sized ships. Subsector navies are primarily responsible for defence, patrol of the spaceways and safeguarding trade and commerce across the sector. In wartime, each subsector is required to put a fraction of its ships at the disposal of the Imperial Navy to act as reserves and reinforcements.

PLANETARY NAVIES

Planetary navies are responsible solely for the defence of their home system, or a handful of related systems held by the same duke. At minimum, the planetary navy protects the space up to the main world's jump limit, but in most systems, it will have bases in orbit of the main world and the gas giant, as well as a presence at any inhabited worlds or asteroid belts. Planetary navies tend to be eccentric at best – officers are often retired or cashiered command staff from the subsector navy, poorly educated locals using out-of-date tactics, and third or fourth sons of noblemen. The equipment is equally eclectic – a combination of local designs, antiques and monitors.

System Defence Boats & Monitors

A considerable percentage of any starship is taken up with jump engines and fuel tanks. This means that a non-jump-capable ship can defeat a starship of equal or even considerably greater tonnage. System Defence Boats are 300 to 500 ton patrol boats used for planetary defence. Monitors are the same concept on a capital scale – a monitor is a multi-thousand ton warship with all its tonnage allocated to weapons and manoeuvre drives. Most monitors are constructed from planetoids, or by stripping the jump engines and fuel tanks from an outdated warship hull. It is rare for a brand-new monitor to be built using modern technologies, although especially important worlds can justify such protection. Sector capitals are often protected by such 'supermonitors'.

Naval Operations

Naval vessels generally operate in task forces or squadrons, rather than alone; the merits of each individual ship supplement and complement the others in company with it. Squadrons are given a numerical designation when they are created, which are tacked onto the squadron type to give their full squadron name. A BatRon given the designation 175 would be known as BatRon 175, or it is also acceptable to refer to it as the 175th BatRon.

The squadrons are also prefixed with a classification dependant on what part of the fleet they serve with. A front line regular fleet unit would have the classification 'Imperial' prefixed; a planetary squadron is usually referred to as a colonial squadron and prefixed 'Colonial'. Reserve squadrons are considered to be part of the regular fleets and keep the Imperial classification.

Battle Squadrons (BatRons) are built around dreadnoughts and battleships, and are designed to smash through enemy lines and engage other Battle Squadrons. Auxiliary craft attached to a BatRon are limited to a few fuel tankers and fast-moving tenders and couriers, and must stay out of the line of fire when dreadnoughts clash.

Cruiser Squadrons (CruRons) have a core of cruisers accompanied by escorts and frigates. These are the work-horses of the Navy, given assignments such as holding captured systems, interdicting

or bombarding enemy worlds, supporting the Battle Squadron advance, or harassing enemy supply lines.

Assault Squadrons (AssaultRons) have the duty of capturing enemy worlds, and are made up of artillery ships and troop transports. Often, a naval force can take control of space, but face significant resistance on the ground, and the only way to hold a world is to put boots on the ground.

Carrier Squadrons (CarRons) are made up of tenders or carriers—single large ships which carry well-armed smaller ships which actually do the fighting when battles are joined. When the craft being carried are in the ten to thirty ton range, the ship is a fighter carrier. When the ships being carried are in the 10,000 ton range, and the large ship is 200,000 tons or more, the ship is called a battle tender or transport.

The points of greatest danger to carried squadrons are immediately prior to jump (when the craft or ships have been recalled) and just after returning to normal space (when the craft have not yet been launched).

Tanker Squadrons (TankRons) are mostly composed of huge fuel tankers, which carry the millions of tons of hydrogen fuel needed by a jump-capable fleet. As such vessels are very vulnerable, a tankron is normally led by a cruiser and accompanied by numerous armed escorts.

Scout Squadrons (ScoutRons) are rarely maintained full-time by the navy, but are instead assembled as needed. ScoutRons are made up mainly of ships borrowed from the Imperial Scout Service, together with a handful of larger fast frigates and stealth ships.

High Guard

Refuelling operations for a task force are another danger point, as forces which are low on fuel and manoeuvring in a gravity well are especially vulnerable. The high guard position, so named because the ship or ships involved are higher in the gravity well than their companions, is used to mount protective operations during such manoeuvres.

CREATING A NAVY CHARACTER

BASIC CHARACTER CREATION FOR A NAVAL OFFICER

This chapter follows the normal stages of character creation as detailed in the *Traveller* core rulebook, pointing out where and how players and Referees can branch away from the standard career paths in order to use what is available in *Traveller: High Guard*.

CHARACTERISTICS

The basic six characteristics of a naval character are the same as any other character. The Imperial Navy holds a position of great prestige across the stars, with correspondingly high Social Standing. Planetary navies are also prestigious postings on a local scale – if a planet can afford only a handful of warships, then the captains and other officers occupy an exalted position in society. By contrast, the subsector naval forces, while possibly the most important and active part of the navy, have the lowest standing in general. Naval characters tend to lean toward higher Dexterity, Intelligence and Education characteristics.

HOMEWORLD

Naval characters tend to hail from long-settled, high-technology planets, and especially from worlds with a large orbital or asteroid-based population. There are often long traditions of naval service in a family, where generation after generation sends its children to space.

THE NAVAL CAREER PATHS

Characters produced by this career system may either be recently mustered-out Naval officers, or if the Referee wishes to run an active Naval campaign (see page 145), they can be still serving.

There are ten distinct Naval career paths – Crewman, Engineering, Pilot, Gunnery, Command, Support, Small Craft Pilot, High Command, Naval Intelligence and Naval Research. A character may also spend four years at a naval college before embarking on his first career term.

CHOOSING A NAVAL CAREER

There are two distinct ways to choose to roll a term on a naval career path. Either simply meet the listed Qualifications of the path as normal, or meet the 'Previous Service' terms listed for each naval career. Some of the more exalted careers can only be reached by working your way up the ranks.

Naval College

The Navy has a long tried and tested method of attracting high quality recruits to its ranks by the use of Naval College and scholarships. A prospective officer will spend time at an educational

facility where he is extensively prepared for his chosen specialist field and prepared for command.

If a character attends naval college, he spends four years there preparing for his career in the navy. To enter naval college, the character must pass the Entry roll. If successful, he may choose a course and attempt to pass the course in order to gain its benefits. A failed course after gaining entry means the character flunks out and spends his first term in the drifter career.

No character may attempt to enter Naval College after his first term, the Navy has plenty of potential recruits eager to fill their ranks and never wish to be seen as the second choice for any new officer recruit.

Any graduate from a Naval College will be commissioned and immediately start his first term at rank 01. A successful education at Naval College will leave the new officer with a full set of basic skills, some training in his chosen specialist field and, of course, his commission as an officer. He will not have an Event or Mishap, losing any benefits he may have gained. In addition he will not gain a mustering out benefit for the term he spent in college.

A graduate will not immediately be placed within his specialised service, instead serving in the Crewman roll of the navy of his choice (it is fairly uncommon, but not unknown, for promising graduates to opt for a naval career in their own planetary navy rather than the more prestigious Imperial Navy, for example).

SUPPORT COLLEGE

Admission	Edu 7+
Success	Int 8+
Honours	Edu 10+

ENGINEERING COLLEGE

Admission	Int 8+
Success	Edu 8+
Honours	Int 10+

GUNNERY COLLEGE

Admission	Int 8+
Success	Int 8+
Honours	Edu 10+

FLIGHT COLLEGE

Admission	Dex 8+
Success	Edu 8+
Honours	Int 10+

CAREER SUMMARY TABLE

Career	Specialisation	Qualification	Previous Service	Survival	Promotion
Crewman		Special			
	Planetary Navy	Int 5+		Int 5+	Edu 7+
	Subsector Navy	Int 6+		Int 6+	Edu 7+
	Imperial Navy	Int 7+		Int 7+	Edu 7+
Support		Edu 7+	One naval term, skill 1+		
	Training		Leadership	Int 5+	Soc 7+
	Medical		Medicine	Edu 7+	Int 5+
	Administration		Admin	Edu 6+	Int 6+
Engineering		Int 8+	One naval term		
	Damage Control			End 7+	Int 5+
	Electronics			Edu 6+	Int 6+
	Mechanic			Int 5+	Edu 7+
Gunnery		Int 8+	One naval term		
	Fire Control			Edu 5+	Int 7+
	Turret			Dex 7+	Edu 5+
	Countermeasures			Int 6+	Edu 6+
Flight		Dex 8+	One naval term		
	Astrogation			Int 5+	Edu 7+
	Helm			Dex 6+	Edu 6+
	Sensors			Edu 7+	Int 5+
Pilot		Dex 8+	One naval term		
	Fighter Pilot			Dex 7+	Edu 5+
	Shuttle Pilot			Edu 5+	Int 7+
	Special Operations			End 6+	Int 6+
Command		Soc 9+	Three naval terms		
	Commander			Int 8+	Edu 6+
	Aide			Edu 7+	Soc 7+
	Tactician			Edu 6+	Int 8+
Naval Intelligence		Int 11+	Four naval terms, Imperial Navy or Subsector Navy only		
	Analyst			Edu 6+	Int 8+
	Planner			Edu 7+	Soc 7+
	Black Operations			End 8+	Int 6+
Naval Engineering		Edu 11+	Four naval terms, Imperial or Subsector Navy, Support or Gunnery		
	Senior Engineer			Int 7+	Edu 7+
	Ship Architect			Edu 6+	Int 8+
	Researcher			Int 8+	Edu 6+
High Command		Int 12+	Six naval terms, Imperial Navy Only		
	Legendary Captain			Int 10+	Soc 8+
	Fleet Commander			Int 8+	Soc 10+
	Daredevil			Soc 9+	Dex 9+

PILOT COLLEGE

Admission	Dex 8+
Success	Dex 8+
Honours	Int 10+

A character that fails admission to one of the Naval Colleges is able to then attempt to join a career of his choice and does not enter the draft.

If admitted the new midshipman undergoes a series of tests over the course of his term. If he succeeds he is deemed to have passed out of the college with a commission, basic training for his chosen field and can roll on the service skills table for the assignment of his choice.

If the character succeeds in making his honours roll not instead of rolling on the service skills table he is free to choose the skill of his choice from that table.

Expanded Character Generation & Ranks

Not all ranks are available in all careers. Obviously, a legendary commander is going to be at least of a rank where they will have a command. A character who is not of the minimum rank number or above the maximum rank for a career suffers a -1DM per missing rank number when trying to qualify for that career. If a character qualifies for a career when he is below the minimum rank, he is promoted to that rank.

For example, the range for the Gunnery career is E4 to E9, or O2 to O4. A character who is rank E1 would suffer a -3 DM to qualification rolls; a character who is rank O6 would suffer a -2 DM.

Some careers are only available to commissioned characters.

For the purposes of benefits ranks 01 to 03 are the equivalent to ranks 1 to 3 respectively in the main *Traveller* rulebook, ranks 04 and 05 are the equivalent to rank 4, ranks 06 and 07 to rank 5, and ranks 08 and above to rank 6.

Rank	NCO	Rank	Commissioned
E1	Spacehand Recruit	O1	Ensign
E2	Spacehand Apprentice	O2	Sublieutenant
E3	Able Spacehand	O3	Lieutenant
E4	Petty Officer Third Class	O4	Lieutenant Commander
E5	Petty Officer Second Class	O5	Commander
E6	Petty Officer First Class	O6	Captain
E7	Chief Petty Officer	O7	Commodore
E8	Senior Chief Petty Officer	O8	Fleet Admiral
E9	Master Chief	O9	Sector Admiral
		O10	Grand Admiral

Navy Type

There are three types of navies operating in the Imperium – the planetary navies, the subsector navies, and the Imperial Navy. A character must choose which navy he is joining when he takes his first naval career. Some advanced naval careers are only accessible to those in the subsector navy or Imperial navy.

A character in one navy can attempt to enlist in a different navy. Determine ranks and benefits separately – a character who leaves a planetary navy to join the Imperial navy drops back down to rank 0. Some events allow a character to transfer and retain rank and benefits. When determining previous service terms, then planetary navies count *all* previous terms, subsector navies count only subsector and Imperial terms, and the Imperial navy counts only Imperial terms.

A character ejected from the Imperial or subsector navy through mishap cannot reenlist in either the Imperial or subsector navy. A character ejected from any career may attempt to join the planetary navy again, but may join a maximum of three different planetary navies.

MEDALS AND COMMENDATIONS

Characters from a military background are capable of earning medals for any heroic action they might have taken during their years of service with the Army, Marines, Navy or within a Mercenary career. The awards here are those presented by the Imperium to its armed forces, different governments will have their own rewards with their own names, although what the different medals represent will reflect those of the Imperium. Many mercenary units will have their own awards and since they are often working for governments can find themselves eligible for a wide range of decorations.

These medals are awarded during character generation whenever the character is involved in a Mishap or Event that is combat orientated and needs a skill roll to prevent injury. The result of this roll will determine what medal(s) are received by the character.

Combat Ribbon: Any character that is in a combat Event or Mishap will automatically be awarded a Combat Ribbon. These will include a citation that will detail the character's name, rank, unit and the name and date of the action. Although the Imperium does keep track of such awards they are not advertised greatly, although on smaller planets or settlements a well-travelled favourite son may well get a mention in the local news media if he receives a Combat Ribbon.

Combat Command Ribbon: Any officer that receives a Combat Ribbon is automatically awarded with a Combat Command Ribbon. This award recognises the fact that the character has led troops into battle and will provide the same details as a Combat Ribbon. Many mercenary units will offer higher positions to ex-service personnel who have a Combat Command Ribbon ahead of those who have just

gained rank without having led men in combat. Local media is more likely to pick up on the reward of such a medal, but it will not feature in any major network or periodical.

Purple Heart: Any character that has to roll on the injury table having failed his skill roll is awarded a Purple Heart. The medal will again have all the details of the character and incident upon it and is considered a more notable reward than either the Combat Command Ribbon or Combat Ribbon by most civilians. Mercenary units tend to be less impressed though, although they will respect a man willing to risk his life and shed blood for his cause/ship/comrades. The award is much more likely to be featured in local media and any character returning to his homeworld/town/neighbourhood is more likely to receive a hero's welcome.

Meritorious Conduct under Fire (MCUF): The MCUF is the first medal for bravery awarded to those who show bravery on the field of battle. Although many thousands of these are awarded every year within the Imperium they are considered to be a great honour to receive. This medal, and the more illustrious medals for bravery, is very highly regarded in both military and civilian circles. An individual awarded such a medal will be honoured by his community with, at the least, a public reception by local dignitaries. A character is awarded this medal if the Effect of his skill roll is 3 or more.

Medal for Conspicuous Gallantry (MCG): Considered for acts of great heroism, the MCG is a very notable reward indeed. The bravery of those given this award is unquestioned and those that receive it are likely to get widespread recognition, with larger media outlets noting the reward. A character is awarded this medal if the Effect of his skill roll is 5 or more.

Starburst for Extreme Heroism (SEH): The SEH is the highest honour that can be achieved by an individual under arms in the Imperium. Generals, Admirals and Subsector Dukes will all salute the man, or woman, who has shown the outstanding heroic qualities necessary to win the award. Despite the vast nature of the Imperium and many conflicts that it will be engaged in an individual receiving the medal is still notable enough to be reported in major news media and those that receive the reward can expect a (deserved) hero's welcome when they return home. A mercenary unit will welcome a bearer of the medal into its ranks, the prestige alone being worth their while, let alone the benefit of having such a notable warrior within its ranks. A character is awarded this medal if the Effect of his skill roll is 7 or more.

Long Service Medal: Any character that serves five or more terms in any Navy automatically receives the Long Service medal.

Meritorious Performance of Duties Medal: This medal is awarded whenever a member of the military performs his duties to an exceptional standard. In game terms whenever a character needs to roll a skill on his events table and rolls a natural 12 he is deemed to have impressed his superiors enough during that term to be made a recipient of this award.

MEDAL BENEFITS

A character who wins a medal may apply a DM from that medal to any one Survival, Qualification or Promotion roll. The DM from a medal may only be applied once.

Medal	DM
Purple Heart	+1
Meritorious Conduct Under Fire	+2
Meritorious Performance Of Duties	+1
Medal for Conspicuous Gallantry	+3
Starburst for Extreme Heroism	+4
Long Service	+1

When a character is mustering out, any medal DMs left unused may be converted into extra benefit rolls, at the rate of one roll per 2 DMs left unused, rounding down.

Going for Glory

Some players will want to take every opportunity they can to gain the highest military honours possible during character creation. As a result it is possible for players to go for glory whenever they are presented with a chance for a reward. A character may add up to 3 to the difficulty of the skill roll, making it much more likely to be injured. However, when it comes to receiving an award the modifier is added to the Effect instead.

Example: Ensign Patrick Oddie is serving in his planet's Navy, protecting his homeworld when his vessel engages pirate forces. He boards the pirates' ship and he must fight them off (Event 56 on the Crewman Events Table). Deciding that this may be his only opportunity for glory Oddie leaps into the fray, taking a massive +3DM to the target number he needs to roll. Taking the dice he rolls a 4 and a 3, he has a skill of 2 in Melee (Unarmed) and 9 Str for a further +1. This gives him a total of 10, however he needs 11+ to avoid injury and is hurt in the ensuing fight.

Checking to see if he has won a medal for his pains, he adds +3 to the total for his bravery, getting a 13. This is 5 more than the 8+ normally needed to avoid injury (this number is unchanged for the purpose of determining if the character will receive an award), and young Patrick's bravery does not go unnoticed. He will receive the MCG and also gain a Purple Heart (for his injury), a Combat Ribbon and a Combat Command Ribbon, assuming he will survive his wounds

CREWMAN

The bulk of the crew on board any naval vessel are low-ranking crewmen, serving under more senior officers. Unlike other careers, the crewman career is divided not by specialisation, but by the type of the navy. Planetary navies are small-scale affairs, normally only a handful of pirate hunter and customs ships or system defence boats. Subsector navies are the backbone of the Imperium, providing local defence and patrolling the spaceways. The Imperial Navy is the most prestigious assignment, but also the most dangerous.

Assignments: Choose one of the following:

- **Planetary Navy:** You served in one of the hundreds of local naval forces across the Imperium.
- **Subsector Navy:** You served in a subsector navy under the seal of the local duke, battling pirates and protecting trade routes.
- **Imperial Navy:** You served upon a major warship, watching the borders for incursions by foreign powers.

Qualifications:

Planetary Navy – Int 5+

Subsector Navy – Int 6+

Imperial Navy – Int 7+

If you are aged 34 or more: –2 DM

Per previous career: –1 DM

CAREER PROGRESS

	Survival	Advancement
Planetary Navy	Int 5+	Edu 7+
Subsector Navy	Int 6+	Edu 7+
Imperial Navy	Int 7+	Edu 7+

Commission: Edu 8+

Ranks: E1 to E5, O1 to O2.

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	1000	None
2	2000	+1 Education
3	3000	+1 Social
4	4000	Contact
5	5000	Weapon
6	6000	1 Ship Share
7	10,000	Two Ship Shares

SKILLS AND TRAINING

	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Str	Pilot (any)	Remote Operations
2	+1 Dex	Vacc Suit	Astrogation
3	+1 End	Zero-G	Engineer (any)
4	+1 Int	Discipline	Computers
5	+1 Edu	Mechanic	Medic
6	+1 Social	Gun Combat (any)	Tactics (naval)

	Specialist: Planetary Navy	Specialist: Subsector Navy	Specialist: Imperial Navy
1	Pilot (any)	Pilot (any)	Pilot (any)
2	Space Science	Mechanic	Engineer (any)
3	Sensors	Sensors	Sensors
4	Comms	Comms	Comms
5	Gunner (turret)	Gunner (any)	Gunner (any)
6	Mechanic	Vacc Suit	Discipline

RANKS AND SKILLS

Rank Code	Skill	Rank Code	Skill
E1		O1	Melee (blade) 1
E2	Mechanic or Discipline	O2	Leadership 1
E3			
E4	Vacc Suit		
E5			



MISHAPS

2d6 Mishap

- | | |
|----|---|
| 2 | Severe budgetary cutbacks leads your squadron being mothballed. You are one of the unfortunates who are not reassigned. |
| 3 | You are placed in the frozen watch, but something goes wrong. One of your limbs atrophies but you are provided with a cybernetic replacement. |
| 4 | Your ship is destroyed in a naval battle. You survive in an escape pod, but the ensuing inquiries and post-mortems end your career. |
| 5 | A serious accident occurs on your watch and you are blamed for it. The accident is not your fault and is the result of another crew-member's negligence, but you are blamed. Gain an Enemy. |
| 6 | Injured. Roll on the Injury table |
| 7 | You fall in love with a serving colleague who is already married or in a long-term relationship and the liaison is discovered. You are forced out of the service after a court martial for breaking regulations. Gain your lover's partner as an Enemy. |
| 8 | Severely wounded. Roll twice on the Injury table and take the lower result. |
| 9 | You are implicated in a scandal. You avoid any real blame, but your tarnished reputation leaves your career in tatters. |
| 10 | A vindictive officer sinks your career. Gain a Rival. |
| 11 | You catch an obscure alien virus that leaves you incapacitated for much of your tour and are medically discharged. Lose 1 from Strength, Dexterity and Endurance as the illness is never fully shaken off. |
| 12 | You are taken prisoner in action and are unable to continue in your role once repatriated. |

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	A boring assignment leads to temptation. Roll End 8+, if you fail you develop a drinking problem or addiction, gain Streetwise and a reliance on a semi-legal drug or alcohol.
13	You stand out from the rank and file, and are groomed for advancement by a superior. Either gain Leadership, or take a +4DM to your next Advancement roll (in any naval career).
14	You become well known on board ship for a particular personal quirk. Roll 1d6 for your reputation: 1-2: Gambler (Gambling o), 3: Poet (Art o), 4: Athlete (Athletics o); 5-6: Joker (Perform o)
15	You may report a fellow crewman for dereliction of duty. If you do gain a +2 DM to your next promotion roll and a Rival. If you fail to do so your crewmate is thankful and becomes an Ally.
16	You are given a special assignment or duty on board ship. Gain a +1 DM to any one Benefit roll.
21	Your vessel participates in a notable military engagement. Gain one of Sensors 1, Engineer (any) 1, Gunnery (any) 1 or Pilot (any) 1.
22	You foil an attempted crime on board, such as mutiny, sabotage, smuggling or conspiracy. Gain an Enemy, but also gain a +2 DM to your next Advancement roll in the Navy.
23	You join a gambling circle on board. Gain Gambler 1 or Deception 1. If you wish, throw Gambler 8+. If you succeed, gain an extra Benefit roll from this career; if you fail, you lose one Benefit roll from this career.
24	There is a hostile stowaway on your ship. Throw Investigate 8+. If successful you catch the troublemaker, you gain +4 to your next Advancement roll. If you do not, your ship is sabotaged and you must roll on the Injury table.
25	You have a chance to save a fellow crewman. If you wish to make the attempt, roll Endurance 8+. If you fail, you are injured. If you succeed, gain a Contact.
26	When hunting an enemy ship, you play cat and mouse with it, chasing sensor ghosts and false trails. Roll Sensors 8+ to find it before it finds you. If you fail, the enemy ship escapes, becoming an infamous commerce raider – take its commander as an Enemy.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38).
51	You are attacked by a hostile native lifeform during a survey mission. Roll Animal (training) 8+. If you succeed, you befriend the animal and can keep it as a pet. If you fail roll on the Injury table.
52	Your ship is boarded, and you find yourself fighting blade to blade with the enemy. Gain Melee (blades) 1 and a duelling scar.
53	You are attacked and overrun by natives during a survey mission. One of your crew falls behind. You must make a Athletics 8+ check to escape; if you stop to pick up the fallen crewman, you have a –2 DM to your roll. If you escape and rescue the crewman, gain an Ally. If you fail, roll twice on the Injury table and take the lowest result.
54	You are engaged in first contact with a minor species. Roll Diplomacy 8+; if you fail roll on the Injury table. Succeed and you gain one of Diplomacy or Carouse.
55	You are escorting a crewmate to his court martial when there is an escape attempt. Roll Melee (any) 8+, if you succeed you gain an Enemy and a +4DM to your next promotion roll. If you fail roll on the Injury table.
56	You take part in a boarding action against a pirate vessel. Roll Gun Combat (any) or Melee (any) 8+. If you succeed you gain one of Melee, Gun Combat or Tactics. If you fail roll on the injury table.
61	On a long survey mission, you pick up some useful skills. Gain Survival 1, Sensors 1, Navigation 1 or Recon 1.
62	You spend this term in the asteroid belts of a system, showing the navy's presence and deterring pirates and claim jumpers. Gain one rank in Vacc Suit, Zero-G or Sensors.
63	You are assigned to various non-combat support vessels. Forced to work alongside reservists and civilian crews, you appreciate the Navy way of doing things even more. Gain one of Discipline, Carouse or Persuade.
64	You star in a series of documentaries featuring your ship and your role gains you 1D3 Contacts, within and/or outside of the navy.
65	You impress a visiting officer so much you may automatically enter a branch of the service of your choice that you have the qualifications for.
66	You display heroism in battle, helping save your ship. You may gain a promotion or a commission automatically.

SUPPORT

The support career is safe and unglamorous, but is vital to the Naval service. Without drill sergeants and instructors in naval academies, without doctors and cyberneticists, without administrators and accountants, the great machine of the navy would grind to a halt. Taking terms in the Support naval career is a safe way to rack up a strong record of service before moving onto a higher career.

Assignments: Choose one of the following:

- **Training:** You drilled or taught naval cadets, or served as an officer on board a training vessel.
- **Medical:** You were a doctor, either on board a ship or at a base hospital.
- **Administration:** Your job had you tethered to a desk, and involved a lot of virtual paperwork.

Qualifications: Edu 7+.

If you are aged 38 or more: -2 DM

Per previous career: -1 DM

Previous Service:

Training – One term in matching naval career, any skill 3+

Medical – One term in matching naval career, Medic skill 2+

Administration – One term in matching naval career, Admin skill 2+

CAREER PROGRESS

	Survival	Advancement
Training	Int 5+	Soc 7+
Medical	Edu 7+	Int 5+
Administration	Edu 6+	Int 6+

Commission: Intelligence 8+

Ranks: E1 to E5, O1 to O3

Mustering-Out Benefits

Roll	Cash	Other Benefits
1	2,000	Scientific Equipment
2	4,000	Contact
3	5,000	+1 Edu
4	6,000	+1 Int
5	8,000	One Ship Share
6	10,000	Air/Raft or one Ship Share
7	12,000	Two Ship Shares

SKILLS AND TRAINING

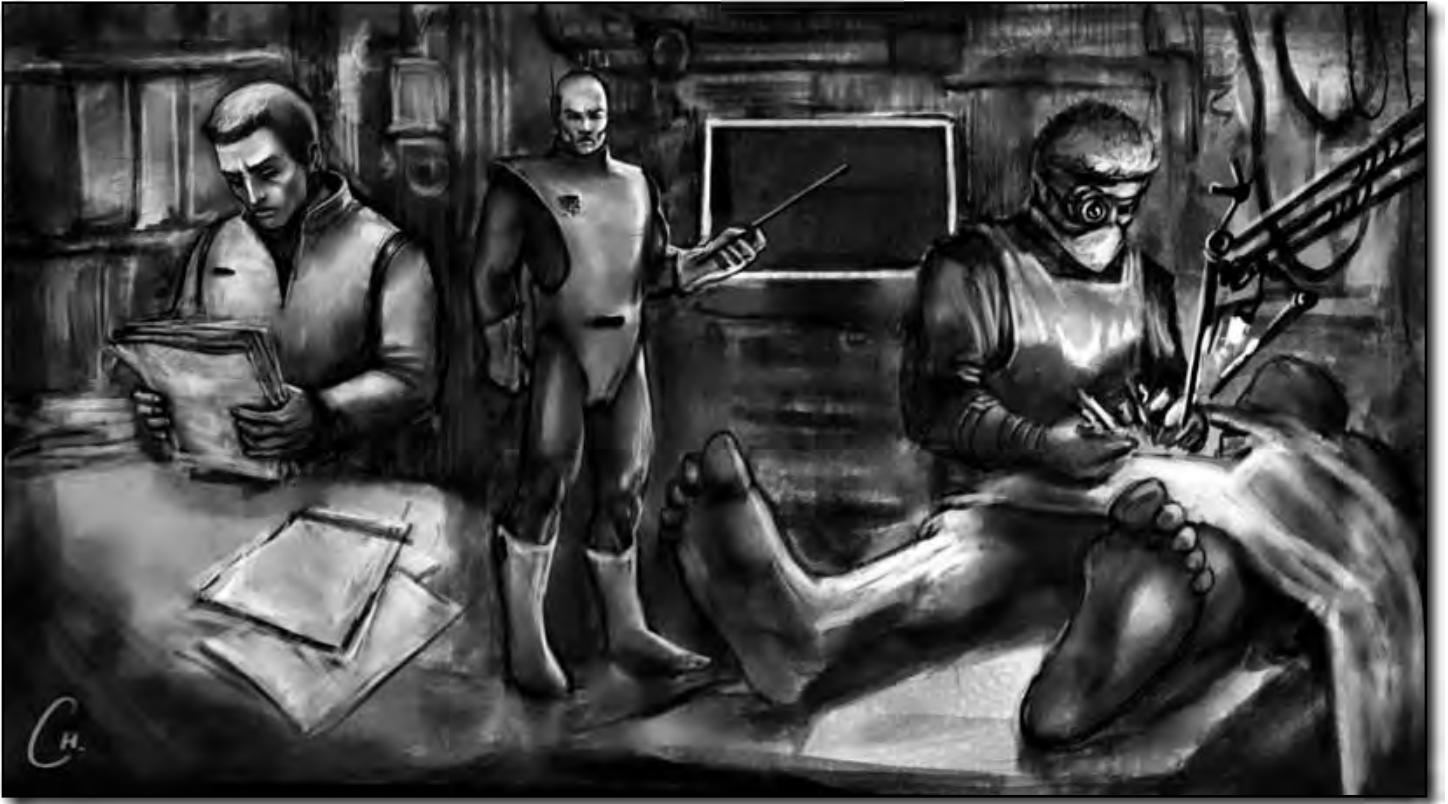
Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Int	Discipline	Admin
2	+1 Edu	Athletics	Diplomat
3	+1 Soc	Gun Combat (any)	Computers
4	Streetwise	Comms	Any Science
5	Carouse	Computers	Medic
6	Any skill at Rank 0	Instruction	Tactics (naval)

Roll	Specialist: Training	Specialist: Medical	Specialist: Administration
1	Instruction	Medic	Admin
2	Gun Combat (any)	Life Science	Computers
3	Vacc Suit	Medic	Comms
4	Recruiting	Engineer (electronics)	Deception
5	Engineer (any)	Diplomat	Persuade
6	Discipline	Admin	Admin

RANKS AND SKILLS

Rank	Training	Medical	Admin
E1			
E2	Melee (brawling) 1	Medic 1	Comms 1
E3			
E4	Leadership 1	Life Science 1	Steward 1
E5			

Rank	Training	Medical	Admin
O1	Instruction 1	Medic 1	Admin 1
O2	Melee (brawling) 1	Life Science 1	Computers 1
O3			



MISHAPS

2d6	Mishap
2	An important assignment ends in failure. You may take one skill roll as you learn from your errors, but you leave the career.
3	A training exercise goes badly wrong as a result of your negligence, resulting in the death of a colleague. You must muster out of this career immediately.
4	An administrative error sends you to the front lines. Unprepared, you perform woefully disgusting your crewmates. The bad reports you receive leave you in a dead end job effectively ending your career.
5	A project you are leading fails expensively. Suffer a -2DM to your next Promotion roll
6	Severely wounded. Roll twice on the Injury table and take the lower result.
7	You expose corruption in your service branch, leading to a major scandal. Although you gain a Contact among the investigating officers, friends of those implicated ensure your career is over.
8	Injured. Roll on the Injury table
9	You volunteer for a medical trial involving a new drug or treatment. Gain an additional Muster Out benefit, but the side-effects affect you physically: lose 1 from either Str, Dex, End or Int and you are medically discharged.
10	You accidentally offend a noble, politician or other influential figure. You are forced out of the navy. Gain an Enemy if you wish.
11	You are accused of malpractice or criminal behaviour. You may stay on in this career if you sacrifice all benefit rolls and reduce your Social Standing by two.
12	An administrative error causes you to be removed from the service. No matter how hard you protest you are unable to change the minds of the naval bureaucracy.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You are given advanced training in a specialist field. Throw Education 8+ to gain one level in any skill you already have.
13	You are involved in political intrigue and secret manoeuvres at your base. Roll Deception or Streetwise 8+. If you succeed, gain a Contact in the intelligence service and an extra benefit roll. If you fail gain a rival.
14	An alien diplomat visits your base. Gain either Diplomat, Carouse, Life Science or a Contact.
15	A patient, student or visiting crewman was a saboteur. Roll Deception or Recon to spot him 8+. If you succeed, gain a +4 bonus to your next promotion roll. If you fail, roll on the Injury table when the bomb goes off.
16	You are given an especially difficult assignment. Roll Instruction, Medic or Admin 8+. If you succeed you may gain one service skill of your choice.
21	You are trapped in a base that comes under threat from enemy attack and join the last line of defence. Roll Gun Combat (any), Melee (any) or Gunnery (any) 8+. If you succeed gain an Ally, as fighting alongside others gains a lifetime friend. If you fail roll on the Injury table.
22	Gain any one of these skills, reflecting your time spent dealing with suppliers. Trade (any) 1, Animals (any) 1 or Social Science (any) 1
23	You are called in to help in the aftermath of a natural disaster. Roll Medic, Admin or Instruction 8+, if you succeed gain 1D3 Contacts, if you fail gain an Enemy as your incompetence adds to the misery.
24	You are based on planet long enough to see many of the local sights. Gain one of Carouse 1, Gambling 1, Language 1 or Streetwise 1.
25	You are assigned to the legal offices of the navy, helping with court martial services. Gain one of Admin 1, Advocate 1, Investigate 1, or Deception 1.
26	On a long survey mission, you pick up some useful skills. Gain Survival 1, Sensors 1, Navigation 1 or Recon 1.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38).
51	A boring assignment in a quartermaster's office gives you the opportunity to pick up some extra equipment. Gain either the Weapon, Armour or Scientific Equipment benefit.
52	Your base is visited by dignitaries. Gain Diplomat, Steward or a high-ranking Contact. While they are present, you overhear something you should not have.
53	Your base is attacked from within by teleporting or commando troops. You are overrun and must flee. If you stay behind to secure important files or equipment, roll Computers or Engineering 8+. Succeed, and either gain a +2 DM to your next advancement roll or a military secret. Fail, and you are injured – roll on the injury table.
54	You are assigned to an important teaching post. Throw Instruction 8+. Success leaves your pupils well prepared for their future roles, gaining you 1D3 contacts.
55	Your ship was destroyed in battle, and you must run for the escape pods. Roll Athletics 8+ to make it there in time. If you fail roll on the injury table.
56	You get into a bar fight with some front line troops who call rear echelon types by a disparaging title. Roll Melee (any) 8+. If you succeed you gain a measure of begrudging respect, gain a Contact. If you fail they kick some asteroid dust in your face and you gain a Rival.
61	A group of businessmen from an supplies company offer you a job as a consultant. If you accept you must leave the service, but gain +1 DM to one Benefits roll and a Contact. You can automatically enter a career in the Civilian Corporate profession next term.
62	You manage to refine some regular procedures. Gain one of Admin, Medic or Instruction, as appropriate to your assignment.
63	A surprise inspection catches you on the hop. Roll Admin, Instruction or Medic 8+. If successful you pass muster and gain a +2 DM to your next Advancement check. Fail and you suffer a -2 DM instead.
64	You are given advanced training in a specialist field. Throw Education 8+ to gain any one skill of your choice at level 1.
65	You go above and beyond the call of duty. Gain a +2 DM to your next Advancement check.
66	You display heroism in battle. You may gain a promotion or a commission automatically.

ENGINEERING

A character following this career serves deep in the bowels of a starship, repairing and maintaining systems and engines. Skilled naval engineers are highly sought after by private corporations and traveller crews, as their experience is very valuable.

Assignments: Choose one of the following:

- **Damage Control:** You were part of a rapid-response damage control team, fighting fires, rescuing injured crew and getting weapons back online in the teeth of an incoming barrage.
- **Electronics:** You specialised in the subtle arcanery of circuit and code.
- **Mechanics:** You specialised in large systems like power plants and manoeuvre drives.

Qualifications: Int 8+.

If you are aged 38 or more: -2 DM

Per previous non-naval career: -1 DM

Previous Service: One naval term

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Int	Discipline	Admin
2	+1 Edu	Comms	Computers
3	+1 Str	Mechanic	Engineer (any)
4	+1 Dex	Engineer	Tactics (naval)
5	+1 End	Vacc Suit	Remote Operations
6	Jack of all Trades	Zero-G	Leadership

Roll	Specialist: Damage Control	Specialist: Electronics	Specialist: Mechanic
1	Zero-G	Comms	Remote Operations
2	Medic	Sensors	Sensors
3	Discipline	Computers	Zero-G
4	Engineer (any)	Engineer (any)	Engineer (any)
5	Mechanic	Mechanic	Mechanic
6	Vacc Suit	Space Science	Space Science

RANKS AND BENEFITS

Rank Code	Skill	Rank Code	Skill
E1		O1	Melee (blade) 1
E2	Mechanic 1	O2	Comms 1
E3		O3	
E4	Vacc Suit	O4	
E5		O5	Tactics (naval)
E6	+1 End		
E7			
E8			
E9			

CAREER PROGRESS

	Survival	Advancement
Damage Control	End 7+	Int 5+
Electronics	Edu 6+	Int 6+
Mechanic	Int 5+	Edu 7+

Commission: Intelligence 8+

Ranks: E2 to E9, O2 to O5

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	3,000	+1 Edu
2	5,000	Scientific Equipment
3	7,000	Weapon or Armour
4	10,000	Retainer or two Ship Shares
5	13,000	Air/raft
6	16,000	+1 Int
7	20,000	Ship's boat or three Ship Shares



MISHAPS

2d6 Mishap

- 2 You are placed in the frozen watch, and something goes wrong with your capsule. One of your limbs atrophies. You are provided with a cybernetic replacement.
- 3 A practical joke against a rival crew involving a backflow to their waste disposal systems backfires when a visiting VIP uses the facilities instead. You are dismissed from the service, but the reason for your dismissal becomes legendary throughout the subsector.
- 4 Your negligence during a routine engineering project results in injury to a colleague. He or she never forgives you for the accident. Gain a Rival.
- 5 You suffer ill health working among the fumes of the engines for too many long shifts. You are medically discharged. Reduce Strength, Dexterity and Endurance all by one due to ill health.
- 6 Severely wounded. Roll twice on the Injury table and take the lower result.
- 7 Your ship breaks down at a key juncture, and faulty maintenance is blamed. You may roll Social + Advocate to stay on, but you will lose all benefits from this career to date if you succeed.
- 8 Injured. Roll once on the Injury table.
- 9 After a particularly brutal engagement you suffer from post traumatic stress and are medically discharged.
- 10 You let slip some sensitive technical information to an agent of a hostile regime. Your incompetence leads to your dismissal.
- 11 You are heavily irradiated in a reactor accident, suffering 1d6+2x100 rads. (See Radiation, page 141 of the main rulebook).
- 12 You lose money trying to help the widow of a deposed planetary dictator trying to get money off planet. Not only do you lose two benefit rolls as a result, but the disdain from your fellow crewmates for falling for such a scheme forces you to leave the service in shame.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You are engaged in damage control when an explosion leaves the ship in great danger. Roll Engineer (any) 8+ to bring the situation under control. If you succeed gain a +2DM to your next promotion roll. If you fail roll on the injury table.
13	You are accused of a failure of discipline. If you accept the charge, you lose the benefit roll from this term. If you contest it, roll Advocate 8+. Succeed, and you lose nothing; fail, and you also suffer a -2DM to Advancement rolls this term.
14	You are given extra training in combat in preparation for a major campaign. Choose one of the following skills – Melee (blade), Zero-G, Medic or Gun Combat.
15	You are assigned to a ship on a shakedown cruise where everything goes wrong. Roll Mechanic 8+; if you fail, you get a -2DM to your next Advancement roll.
16	You stand out from the rank and file, and are groomed for advancement by a superior. Either gain Leadership, or take a +4DM to your next Advancement roll (in any naval career).
21	You are given advanced training in a specialist field. Throw Education 8+ to gain one level in any skill you already have.
22	You have a chance to save a fellow crewman. If you wish to make the attempt, roll Endurance 8+. If you fail, you are injured. If you succeed, gain a Contact.
23	You are baffled by the latest technological systems that are installed on your ship. Roll Engineer (any) or Computer 8+. If you succeed you may increase the skill you used by one rank, if you fail you have a -2DM to your next Advancement check.
24	The base or ship you are stationed on is targeted by a terrorist bomb, which you discover. If you try to disarm it, roll Explosives 8+. If you succeed gain an Ally. If you fail, roll twice on the injury table and take the lower result. If you flee, the bomb goes off and damages the base.
25	You receive cross-training in another field. Roll Education 8+ to gain any one skill.
26	A long patrol puts a strain on a friendship. Downgrade one Ally to a Contact, or lose one Contact.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38).
51	You are assigned to help an absent-minded researcher. Gain him as a Contact.
52	You are given responsibilities for weapon maintenance and gain Gunner (any).
53	You show an uncanny ability to get more from the engines that the manual states is possible. This gains you kudos from the senior command officers who look to help your career. Gain a +4DM to your next promotion roll.
54	You are given a new assignment and have to learn new systems. Gain Engineer (any), Sensors or Comms 1.
55	You learn that your new commander is a little in awe of those who manage his ship's systems and you are able to scale down the scope of your duties by exaggerating problems. Gain either Persuade 1 or Deception 1.
56	You serve under a legendary Engineering officer. Roll Engineer (any) or Mechanic 8+. If you succeed he is sufficiently impressed by your skills to assign you to a training program. Increase any one skill you already have by one rank. If you fail he makes you learn the basics again, gain Engineer (any) 0 or Mechanic 0.
61	You acquit yourself well in battle. Roll Discipline 8+. If you succeed you gain a +4DM to your next Advancement check. If you fail roll on the Injury table.
62	You are assigned to a prototype ship working on her trials. Roll Engineer (any) 8+. If you succeed the trial was a success and you gain a Contact. Fail and there is an accident - roll on the Injury table.
63	Your new commander is a stickler, ensuring that you are constantly busy with checking and rechecking your systems. However your abilities increase as a result of these duties. Gain Engineer (any), Mechanic or Computer.
64	You come across a piece of alien technology. Either sell it for another benefit roll, or keep it (your Referee will determine what it is).
65	Your ship misjumps or falls victim to an ambush or accident. Roll on the Injury table.
66	You display heroism in battle. You may gain a promotion or a commission automatically.

GUNNERY

While the majority of a ship's weapons are controlled by computers, there is still a need for trained human gunners to take over in the event of a computer failure, or when only near-psychic gut instinct can shoot down an incoming missile.

Assignments: Choose one of the following:

- **Fire Control:** You plotted the movements of enemy vessels and coordinated long-distance barrages from bay weapons or missile launchers.
- **Turret:** You operated the small guns of a starship. Either sat in a little bubble of steel and plastic or at a terminal responsible for vast numbers of weapon.
- **Countermeasures:** You operated a sandcaster or screen, the last line of defence against incoming fire.

Qualifications: Int 8+.

If you are aged 38 or more: -2 DM

Per previous non-naval career: -1 DM

Previous Service: One naval term

CAREER PROGRESS

	Survival	Advancement
Fire Control	Edu 5+	Int 7+
Turret	Dex 7+	Edu 5+
Countermeasures	Int 6+	End 6+

Commission: Education 8+

Ranks: E2 to E9, O2 to O5

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	3,000	One ship share
2	5,000	Weapon or armour
3	7,000	+1 Dex
4	10,000	Combat implant
5	13,000	Two ship shares
6	16,000	+1 Int or retainer
7	20,000	Ship's Boat or Two ship shares

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Dex	Discipline	Sensors
2	+1 Int	Sensors	Gunner (any)
3	+1 Dex	Comms	Computers
4	+1 Int	Gun Combat (any)	Tactics (naval)
5	+1 Edu	Mechanic	Space Science
6	Discipline	Gunner (any)	Leadership

Roll	Specialist: Fire Control	Specialist: Turret	Specialist: Countermeasures
1	Sensors	Gunner (turret or bay)	Gunner (screens)
2	Tactics (naval)	Engineer (electronics)	Comms
3	Leadership	Sensors	Sensors
4	Computers	Tactics (naval)	Tactics (naval)
5	Comms	Pilot (any)	Mechanic
6	Gunner (turret or bay)	Gunner (turret or bay)	Gunner (turret or bay)

RANKS AND SKILLS

Rank Code	Skill	Rank Code	Skill
E2	Gunner (any) 1	O2	Tactics (naval) 1
E3		O3	
E4	Recon	O4	
E5		O5	Leadership 1
E6	+1 Dex		
E7			
E8			



MISHAPS

2d6 Mishap

- 2 A technical glitch in your targeting system means that you fail a critical test. Take the technician who ruined your career as a Rival.
- 3 During a battle you hit and severely damage one of your own side. The inquiry reaches a 'Friendly Fire' verdict but your career prospects are severely affected as a result.
- 4 Your ship is destroyed in battle. You survive, but your career in the Navy is over.
- 5 Your guns jam or malfunction during a crucial exercise or combat. Once the mechanics look over the system afterwards they are found to be in perfect working order and you are presumed to have frozen under stress. You are discharged.
- 6 Severely wounded. Roll twice on the Injury table and take the lower result.
- 7 Your inability to perform good timekeeping gets you thrown out of the navy when you manage to sleep through your ships departure from port. For the third time.
- 8 Injured – roll once on the Injury table.
- 9 Other gunners on your ship are using combat drugs to increase their reaction times. If you do not do so, you fall behind and are replaced. If you do so, you may continue on this career, but lose one benefit roll and have an addiction to combat drugs.
- 10 You strike an oafish superior in a moment of rage. You are dishonourably discharged.
- 11 During a battle you hit and severely damage one of your own side. The inquiry reaches a Negligence verdict . Your career is over and you suffer a –2DM to your Mustering Out roll. You also gain an Enemy because one of the men who died as a result of your actions was the son of a vindictive officer who will see you punished in more creative ways.
- 12 You gain a reputation as a maverick who takes unnecessary risks in training and real-fire exercises. Your failure to conform leads you to be discharged.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You are ordered to bombard a defenceless planet from orbit. If you refuse to obey this order, you suffer a -4DM to your next advancement roll.
13	A fighter or small enemy ship crashes into your turret or station. The pilot is still alive. If you choose to attempt to rescue him roll Vacc Suit 8+, if you succeed you gain an Ally, if you fail roll on the Injury table.
14	Your ship is part of a naval display or goodwill tour. Gain one of Carouse 1, Diplomat 1, Art 1 or Streetwise 1.
15	You are challenged to a sharp-shooting contest. Wager up to three benefit rolls on the outcome. You must roll Gunner 8+ at a -2 DM to win. You may also take the challenger as a Contact.
16	A well-timed shot wins a battle. Either gain Tactics (naval), or take a +4DM to your next Advancement roll (in any naval career).
21	You are given advanced training in a specialist field. Throw Education 8+ to gain one level in any skill you already have.
22	An explosion occurs in your section. Roll Discipline or Engineer (any) to help the damage control party to bring the situation under control. If you fail roll on the Injury table, if you succeed gain a +2 DM to your next Advancement check.
23	You receive cross-training in another field. Roll Education 8+ to gain any one skill.
24	In fierce fighting on an enemy flagship, you find yourself face to face with the enemy captain. He offers his surrender if you will vouch for his safety, but you know your commander wants him dead. If you accept his surrender, roll Advocate 8+. Fail, and gain your commander as an Enemy. Succeed, and gain the enemy captain as an Ally.
25	You are ordered to lead an attack on an enemy strongpoint. Roll Tactics or Discipline 8+ to succeed. If you pass, gain Leadership and an Ally.
26	You are ordered to bombard an enemy position close to a civilian population centre. Obey this questionable order and gain an Enemy and a +2 DM to your next Advancement roll. Refuse, and suffer a -4 DM to your next advancement roll.
31-36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41-46	Naval Event. Roll on the Naval Events table (see page 38).
51	You are attacked by natives during a survey mission. As you retreat one of your crew falls behind. You must make a Athletics 8+ check to escape; if you stop to pick up the fallen crewman, you have a -2 DM to your roll. If you escape and rescue the crewman, gain an Ally. If you fail, roll twice on the Injury table and take the lowest result.
52	You fire on a suspicious vessel on a border patrol that turns out to have been suffering major system malfunctions rather than hostile intent. Roll Advocate 8+, succeed and you are deemed to have acted within your orders, fail and you are demoted one rank for your actions.
53	Hellishly intense fighting rages. You are involved in a series of bloody battles. Roll Melee (any) 8+ to survive the fight unscathed. If you fail, roll on the Injury table.
54	You are given responsibilities for weapon maintenance and gain Engineer (Power) or Engineer (Electronics).
55	You join your new ship only to kill the ship's mascot on your first day on board, after mistaking it for vermin. You are ostracised as a result and gain 1D3 Rivals.
56	You are part of a shore party that is caught up in a civil war that suddenly overthrows the current government of the planet. Roll Gun Combat (any) or Melee (any) 8+. If you fail roll on the Injury table. If you succeed you help stabilise the situation, allowing the evacuation of non-essential personnel. Gain a Contact.
61	You are entered in an inter-fleet gunnery competition. Roll Gunner (turrets) 10+. Fail and you gain a Rival for failing your crewmates. Succeed and you are given help in your career by your commanding officer. You are automatically successful with your next Advancement check.
62	You are assigned as a forward observer attached to marines that are fighting on a hostile world. Roll Gunner (any) 8+, if you fail you bring support fire down upon your own position, roll on the Injury table. If you succeed you gain a Contact amongst the marines.
63	You hair falls out after a suspected radiation leak. You strive to make the most of the time left to you, gain any one skill as you redouble your studies. When you finally have a health check it is found you are merely the victim of an alien parasite and eventually your hair grows back, even if its colour now has an odd, greenish tint.
64	You acquit yourself well in battle. Roll Gunner (any) 8+. If you fail roll on the Injury table, if successful gain a rank in Gunner (any).
65	You make an unexpected connection outside your normal circles. Gain a Contact.
66	Your fire team is the best and most accurate on the ship. You are automatically promoted.

FLIGHT

A character in the Flight career works closely with the bridge crew, and it is the usual route to command of a starship.

Assignments: Choose one of the following:

- **Astrogation:** You plotted jumps and guided starships through the heavens.
- **Helm:** You piloted a starship directly.
- **Sensors:** You were a sensor operator, peering into screens looking for the telltale flicker of an enemy ship.

Qualifications: Dex 8+.

If you are aged 38 or more: -2 DM

Per previous non-naval career: -1 DM

Previous Service: One naval term

CAREER PROGRESS

	Survival	Advancement
Astrogation	Int 5+	Edu 7+
Helm	Dex 6+	Edu 6+
Sensors	Edu 7+	Int 5+

Commission: Education 8+

Ranks: E3 to E9, O2 to O6

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	5,000	One ship share
2	7,000	+1 Edu
3	10,000	Retainer
4	13,000	Combat implant
5	16,000	+1 Soc
6	24,000	+1 Int
7	32,000	Ship's Boat or Two ship shares

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	Discipline	Discipline	Tactics (naval)
2	+1 Int	Pilot (any)	Computers
3	+1 End	Comms	Space Science
4	+1 Soc	Sensors	Engineer (electronics)
5	+1 Dex	Gun Combat (any)	Astrogation
6	+1 Edu	Astrogation	Engineer (any)

Roll	Specialist: Astrogation	Specialist: Helm	Specialist: Sensors
1	Astrogation	Pilot (any)	Sensors
2	Computers	Gunner (any)	Pilot (any)
3	Comms	Comms	Remote Operations
4	Space Science	Mechanic	Space Science
5	Navigation	Recon	Computers
6	Astrogation	Pilot (any)	Sensors

RANKS AND SKILLS

Rank	Astrogation	Helm	Sensors
E3			
E4	Computers 1	Pilot (any) 1	Space Science 1
E5			
E6			
E7			
E8			
E9			

Rank	Astrogation	Helm	Sensors
O2	Astrogation 1	Tactics (naval) 1	Space Science 1
O3			
O4			
O5	Tactics (naval) 1	Leadership 1	Tactics (naval) 1
O6			



MISHAPS

2d6 Mishap

- 2 Your ship misjumps, and spends months stranded in deep space. Inquiries into the cause of the misjump hound you out of the service.
- 3 Through either tiredness or negligence a routine manoeuvre results in a collision with another ship.
- 4 You serve under a captain who is overly strict. Make Pilot, Comms and Sensors 8+. If you succeed at all three, you may continue in this career. Otherwise, leave the career and gain the captain as a Rival.
- 5 Other flight deck crew members on your ship are using stimulant drugs to increase their endurance. If you do not do so, you fall behind and are replaced. If you do so, you may continue on this career, but lose one benefit roll and have an addiction to stimulants.
- 6 Severely wounded. Roll twice on the Injury table and take the lower result.
- 7 A superior officer develops inappropriate feelings for you which you manage to rebuff. However he or she becomes vindictive and you are forced out of the service. Gain the officer as a Rival.
- 8 Injured – roll once on the Injury table.
- 9 A jump routine is particularly harrowing and you develop a complex called Jump Space Blindspot Phobia, caused by gazing for too long into the strange null-zone of jump space. You are mustered out of the service as a result. You can still make jump trips, but must roll End 9+ to avoid becoming an emotional, dysfunctional wreck for the voyage.
- 10 One of your orders or decisions sends several crewmen to their deaths. You may leave the service with an extra skill roll driven by guilt.
- 11 A disagreement with an unstable colleague over a minor bridge decision descends into an unseemly brawl. You gain a Rival as you are both drummed out of the service (this was not the first breach of discipline for either of you).
- 12 After a particularly heavy session on shore leave you invite a couple of newly found drinking companions onto your ship, currently docked in port. Sneaking past the few security staff on board you are determined to show your guests what a great pilot you are, and manage to collide with a noble's yacht. Your gross incompetence is rewarded with the loss of your Benefit roll for this term and a dishonourable discharge after your court martial.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	Your ship is involved in a first contact with an alien species. Gain Life Science 1, Diplomat 1, Remote Operations 1 or a Contact.
13	You participate in a series of wargames. Roll Tactics (Naval) 8+ to win. If you succeed your skill is noted and you are assigned to training, gain one of Tactics (Naval) or Leadership.
14	Your ship is assigned to a pirate hunting mission. To your surprise, one of your Contacts (or a new Contact if you have no existing suitable Contacts) is a member of the pirate crew. If you intercede on their behalf, roll Advocate 8+. Succeed, and you may keep the Contact. Fail, and they are imprisoned and blame you, becoming an Enemy.
15	You are invited to dine at the captain's table. Roll Steward, Carouse or Diplomat 8+. If you succeed, gain a Contact in the crew.
16	You find yourself taking command when a bridge hit incapacitates senior staff. Either gain Leadership, or take a +4DM to your next Advancement roll (in any naval career).
21	Your commanding officer takes an interest in your career. Either gain Tactics (naval) 1, or take a +4 DM to your next Advancement roll thanks to his aid.
22	You are given advanced training in a specialist field. Throw Education 8+ to gain one level in any skill you already have.
23	You have a chance to save a fellow crewman after an accident on board. If you wish to make the attempt, roll Endurance 8+. If you fail, you are injured. If you succeed, gain a Contact.
24	You perform a tour of border worlds. Roll Social 8+ to gain either Animals, Survival, Recon or a Contact.
25	You receive cross-training in another field. Roll Education 8+ to gain any one skill.
26	Your ship is boarded, and you find yourself fighting blade to blade with the enemy. Gain Melee (blades) 1 and a duelling scar.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38).
51	You are present at one of the great naval engagements of recent times. Gain Tactics 1.
52	Your ship misjumps or falls victim to an ambush or accident. Roll on the Injury table.
53	On patrol near the border you misjump into hostile territory. Roll Pilot or Astrogation 8+, if you succeed you manage to plot a course back home escaping with minimal contact with the enemy, gaining 1D3 Contacts. Fail and your ship is engaged by the enemy and you must roll on the Injury table.
54	You are on the graveyard shift when you encounter an unexpected hazard at the last moment, your sensors having difficulty in picking it up. Roll Pilot or Sensors 8+, succeed and you avoid a collision. Fail and you are subsequently demoted one rank for dereliction of duty.
55	You serve under a renowned commander who encourages his men to improve their skills wherever possible with intense training programs. Gain an extra skill by rolling on your specialist skills and training table.
56	You are engaged in a prolonged campaign of cat and mouse against pirates. Roll Pilot or Astrogation 8+. If you succeed you gain one of Pilot, Astrogation, Leadership or Tactics (Naval), if you fail roll on the Injury table.
61	Your commander and his executive officer are constantly at loggerheads. Gain Diplomat as you try to stay out of it!
62	You catch a superior in an inappropriate act with another crewman of lower rank. If you report their activities you gain a +4DM to your next Advancement check and gain a Rival. If you keep quiet you gain a Contact.
63	A mutiny forces you to defend the bridge from rebellious crewmen. Roll Gun Combat (any) or Melee (any) 8+, if you fail roll on the Injury table. If you succeed gain a +4DM to your next Advancement check.
64	You are the sole survivor of the destruction of a major warship on two occasions, marking you as a Jonah amongst the service. In your attempts to disguise your history you gain Deception, however many Navy and ex-Navy personnel treat you with a great deal of suspicion once they discover your identity and history.
65	Your commanding officer becomes dangerously unhinged following an injury and your fellow officers create a cabal to remove him. Do you join the mutineers? If you do not your loyalty is noted and gain a +2DM to your next Advancement check. If you do roll Advocate or Diplomat 8+ to explain your actions at court martial. Succeed and you are seen as an ambitious officer, gain Social Standing +1, fail and you are demoted one rank for your (minor) part.
66	You become an indispensable part of the bridge staff. You are automatically promoted.

PILOT

Pilots operate small craft, such as shuttles and fighters. It is one of the most hazardous naval assignments, leaving the protection of a mighty starship to land on dangerous planets or fly through a hail of fire.

Assignments: Choose one of the following:

- **Fighter Pilot:** You piloted a small one or two-man combat craft.
- **Shuttle Pilot:** You piloted a utility vehicle like a shuttle, cutter or ship's boat.
- **Special Operations:** You piloted a small craft in support of marine troops, such as a boarding shuttle or stealth craft.

Qualifications: Dex 8+.

If you are aged 38 or more: -2 DM

Per previous non-naval career: -1 DM

Previous Service: One naval term

CAREER PROGRESS

	Survival	Advancement
Fighter Pilot	Dex 7+	Edu 5+
Shuttle Pilot	Edu 5+	Int 7+
Special Operations	End 6+	Int 6+

Commission: Education 8+

Ranks: E3 to E9, O2 to O5

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	3,000	One ship share
2	5,000	Weapon or armour
3	7,000	+1 Dex
4	10,000	Ship's Boat
5	13,000	Two ship shares
6	16,000	+1 Int or Retainer
7	20,000	Ship's Boat or Two ship shares

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Dex	Pilot (any)	Engineer (any)
2	+1 End	Sensors	Comms
3	Carouse or Discipline	Astrogation	Astrogation
4	+1 Int	Gunnery (any)	Tactics (naval)
5	+1 Dex	Mechanic	Zero-G
6	+1 End	Gun Combat (any)	Vacc Suit

Roll	Specialist: Fighter	Specialist: Shuttle	Specialist: Special Operations
1	Pilot (small craft)	Pilot (small craft)	Pilot (small craft)
2	Gunnery (turret)	Admin	Gunnery (turret)
3	Athletics	Comms	Stealth
4	Tactics (naval)	Leadership	Gun Combat (any)
5	Zero-G	Astrogation	Battle Dress
6	Vacc Suit	Remote Operations	Flyer (any)

RANKS AND SKILLS

Rank Code	Skill
E2	Pilot (Small craft) 1
E3	
E4	Gunnery (turret) 1
E5	
E6	+1 Dex
E7	
E8	
E9	

Rank Code	Skill
O2	Tactics (naval) 1
O3	
O4	
O5	Leadership 1



MISHAPS

2d6 Mishap

- | | |
|----|--|
| 2 | You are accused of negligent flying, but the fault was with the starport traffic control. Gain a Rival even though you fail to convince the authorities of where the blame really lies. |
| 3 | New tactical priorities leave small craft to become a neglected part of the fleet in favour of massive capital ships. You eventually have enough of making do with old and unsafe equipment and resign in protest. |
| 4 | Your shuttle suffers an engine failure and goes adrift without power. There is not enough air for the crew, and you are forced to draw lots. The loss of your friends causes you to leave the career at the earliest opportunity. |
| 5 | A malfunction on the return to the hangar bay of your parent ship results in a crash landing. |
| 6 | Severely wounded. Roll twice on the Injury table and take the lower result. |
| 7 | A stunt flying competition goes badly wrong and a colleague is killed. The subsequent inquiry reaches a Negligence verdict. Your career is over and you suffer a -2DM to your Mustering Out roll. You also gain an Enemy because one of the men who died as a result of your actions was the son of a vindictive officer who will see you punished in other, more creative ways. |
| 8 | Injured – roll once on the Injury table. |
| 9 | A take-off procedure goes badly wrong and you wreck your ship, ruining your career. |
| 10 | Your shuttle is ambushed by enemy forces and you are captured. Your career is over upon repatriation. |
| 11 | A failure of your navigation computer results in a near-miss incident with another ship. |
| 12 | You lead a spectacularly successful attack on a major warship. Unfortunately your success was due to the fact that it was a friendly vessel you were not briefed about and should not have been in the area. Whilst cleared of direct blame you find that the dark looks wherever you go are too much to bear and leave the service. |

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You are assigned to escort an important convoy. Before the mission, you are contacted by agents of an enemy power who wish to attack the convoy. If you betray your mission, you gain 1D3 extra benefit rolls for this career, and may automatically qualify for any Rogue or Agent career for your next term, but you must leave the navy.
13	Your shuttle is forced to land on a wilderness planet. Gain Survival 1, Recon 1, Animals 1 or Seafaring 1.
14	You are asked to volunteer for a hazardous mission. If you accept, roll Pilot 8+. Fail, and the mission fails and you must roll on the Injury table. Succeed, and you gain a Contact.
15	You lead a risky mission in deep space. Either gain Tactics (naval), or take a +4DM to your next Advancement roll (in any naval career).
16	You have an opportunity to serve as part of a display team. Roll Pilot 8+ to qualify; succeed and you gain a rank.
21	You are sent to college for retraining. Gain Pilot 1, Leadership 1 or Recon 1.
22	Your squadron was put into reserve this term. Gain one of Admin 1, Mechanic 1 or Computer 1.
23	You have the chance to save the life of a senior officer. If you take the chance, roll Melee (any) or Pilot (any) 8+. If you fail, roll on the Injury table. If you succeed, gain an Ally.
24	An enemy ship matches your threatening posture, and your commander orders drills to show your readiness for battle. Roll Discipline 8+. If you succeed, the enemy ship breaks off. Gain a +2DM to your next advancement roll.
25	Hellishly intense fighting rages. You are involved in a series of bloody battles. Roll Melee (any) 8+ to survive the fight unscathed. If you fail, you roll on the Injury table. Succeed and you learn to handle yourself better in battle, gain one of Gun Combat (any) or Melee (any).
26	You star in a series of documentaries featuring your ship, your role leads you to having a stalker who later harbours resentment towards you. Gain an Enemy.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38).
51	You are given advanced training in a specialist field. Throw Education 8+ to gain one level in any skill you already have.
52	You spearhead an attack but the enemy presence is much stronger than anticipated. If you break off, you survive but have a –4DM to your next Advancement check. If you continue the mission, roll Pilot or Flyer 8+. Pass, and you survive the attack and gain Pilot (any) or Gunner (any). Fail, and you are shot down – roll twice on the Injury table and take the lower result.
53	You serve under a renowned commander who encourages his men to improve their skills wherever possible with intense training programs. Gain an extra skill by rolling on your specialist skills and training table.
54	You serve as a test pilot for some Naval Engineering types. Roll Pilot 8+, if you succeed your input is invaluable and you learn from the eggheads, gain Engineer (any). Fail and you succeed in alienating them, gain a Rival.
55	You oversee the retrofitting of new weaponry to your ship. Throw Intelligence 8+. If you succeed, you gain one level in Mechanic, Leadership or Science (electronics).
56	The people of one world beg for assistance from naval military forces, but you are ordered not to intervene. The peoples' cause is just, and you can 'unofficially' aid them by secretly supporting them with weaponry or intelligence. If you do so, roll Deception 8+. Succeed, and gain an Ally. Fail, and suffer a -4DM to your next Advancement roll.
61	You are forced to crash land after suffering a systems failure. Roll Pilot 8+ fail and you roll on the Injury table, if you succeed you spend some time before rescuers find you, gain one of Survival or Recon.
62	You spend time in a poorly funded outfit that is severely understaffed. Gain Jack of all Trades 1 as you are forced to cope without the skilled support you are used to.
63	You are engaged in a prolonged campaign against pirates. Roll Pilot or Gunner 8+. If you succeed you gain one of Pilot, Gunner, Leadership or Tactics (Naval), if you fail roll on the Injury table.
64	You gain a reputation of going after the easy kill for your own glory, rather than for completing the mission successfully. You may gain one of Gunner or Pilot, but will automatically fail your next Advancement check.
65	You have the opportunity to excel. Roll Pilot 8+, if you succeed you are given temporary command of a wing of small craft, gain Leadership 1 or Tactics (Naval) 1.
66	You display heroism in battle. You gain a promotion or a commission automatically.

COMMAND

In this stage of his career, a character is a senior officer on board a starship, or may even have command of his first starship. This is as high as Planetary Navy characters can rise – no careers beyond this one exist for them.

Assignments: Choose one of the following:

- **Commander:** You commanded a smaller craft such as a patrol boat, or were executive officer on board a larger starship.
- **Aide:** You served at the right hand of a great captain or admiral.
- **Tactician:** You were a strategic planner and analyst.

Qualifications: Soc 9+.

If you are aged 42 or more: –2 DM

Per previous non–naval career: –1 DM

Previous Service: Three previous naval terms.

CAREER PROGRESS

	Survival	Advancement
Commander	Int 8+	Edu 6+
Aide	Edu 7+	Soc 7+
Tactician	Edu 6+	Int 8+

Ranks: O5 to O7.

MUSTERING–OUT BENEFITS

Roll	Cash	Other Benefits
1	10,000	Two ship shares
2	15,000	Weapon
3	20,000	Armour
4	25,000	+1 Edu
5	30,000	Ship's Boat or Retainer
6	35,000	+1 Soc
7	40,000	Ship's Boat or three ship shares

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Soc	Leadership	Space Science
2	+1 Edu	Tactics (naval)	Tactics (naval)
3	+1 Int	Instruction	Computers
4	Gambling	Comms	Advocate
5	Carouse	Diplomat	Deception
6	Diplomat	Admin	Investigate

Roll	Specialist: Commander	Specialist: Aide	Specialist: Tactician
1	Leadership	Admin	Computers
2	Tactics (naval)	Advocate	Tactics (naval)
3	Engineer (any)	Diplomat	Comms
4	Investigate	Comms	Recon
5	Pilot (any)	Investigate	Sensors
6	Gunner (any)	Leadership	Space Science

RANKS AND SKILLS

Rank Code	Commander	Aide	Tactician
O5	Leadership	Diplomat	Tactics (naval)
O6	+1 Soc	+1 Edu	+1 Int

O7



MISHAPS

2d6 Mishap

- | | |
|----|--|
| 2 | Someone frames you as a traitor. Gain an unknown Enemy and lose half your benefits from this career. |
| 3 | You are accused of malpractice or criminal behaviour. You may stay on in this career if you sacrifice all benefit rolls and reduce your Social Standing by two. |
| 4 | Your ship is destroyed in battle. Your career is over. |
| 5 | A psychological profile deems you totally unsuitable for command. Your protestations that this is wrong and those performing the tests incompetent are taken to be indicators of the paranoia these tests indicate you suffer from. |
| 6 | Severely wounded. Roll twice on the Injury table and take the lower result. |
| 7 | A wargames exercises tests your strategic and tactical resolve to the maximum. Roll Leadership 8+. If you fail your blunders costs you your next advancement roll. |
| 8 | Injured – roll once on the Injury table. |
| 9 | Following a long and arduous assignment you fall in love with a colleague of a lower rank. You are removed from your position for breaking regulations. |
| 10 | You are moved to a stultifying desk job, and leave the service instead to sate a growing taste for adventure. |
| 11 | You serve under a vile and unpleasant commander and end up in a feud with him, culminating in you throwing his beloved potted plant out of an airlock! You gain him as an Enemy, but gain an Ally and 1D3 Contacts amongst the rest of the crew, however your career is over as your superior destroys it. |
| 12 | You become involved in political manoeuvring, but end up on the wrong side of an internal dispute. |

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You are assigned a secret mission. You may choose to roll on the Agent (Intelligence) events table instead (see page 11 of the Traveller core rulebook). If you do not, gain Deception 1.
13	You rub shoulders with the nobility. Gain any one of Carouse 1, Diplomat 1, Steward 1 or Perform (dance) 1.
14	You lead a hazardous mission. Roll Tactics (naval) 8+. If you fail, one of your naval Contacts is killed and roll on the Injury table. If you succeed, you gain an extra skill roll.
15	You are groomed for higher command by a senior officer. Either gain him as an Ally, or take a +4DM to your next Advancement roll (in any naval career).
16	You spend a great deal of time on the fringes of known space. Roll Survival 8+ or Pilot 8+. If you succeed, gain a Contact in an alien race and one level in any skill of your choice. If you fail, roll on the Mishap table.
21	On a long survey mission, you pick up some useful skills. Gain Survival 1, Sensors 1, Navigation 1 or Recon 1.
22	You get into a political debate with a member of the bridge staff. Throw Social Standing 8+. Fail and you say something you will always regret and you cannot pass your Advancement roll this term. Succeed and you are looked at more favourably, gaining a +2 DM to your next Advancement roll.
23	Your ship was destroyed in battle, and you must run for the escape pods. Roll Dexterity 8+ to make it there in time. If you fail, you are injured.
24	When hunting an enemy ship, you play cat and mouse with it, chasing sensor ghosts and false trails. Roll Sensors 8+ to find it before it finds you. If you fail, the enemy ship escapes, becoming an infamous commerce raider – take its commander as an Enemy.
25	In fierce fighting on an enemy flagship, you find yourself face to face with the enemy captain. He offers his surrender if you will vouch for his safety, but you know your commander wants him dead. If you accept his surrender, roll Social + Advocate. Fail, and gain your commander as an Enemy. Succeed, and gain the enemy captain as an Ally.
26	You are ordered to lead an attack on an enemy strongpoint. Roll Tactics or Discipline 8+ to succeed. If you pass, gain Leadership and an Ally.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38).
51	You are assigned to the staff of an officer in the High Command. Gain one of Tactics (any), Leadership or Diplomat.
52	Some information regarding some secret of the nobility or high society leads you to gaining a Rival and a Contact.
53	You are assigned to the legal offices of the navy, helping with court martial services. Gain one of Admin 1, Advocate 1, Investigate 1, or Deception 1.
54	You suspect an alien ship is going to attack. Do you fire or not? After choosing, roll 1d6. On a 1–4, the enemy ship was not going to attack. If you fired, you have a –8 DM to your next advancement roll and lose all benefits from this career. On a 5–6, the enemy ship attacks. If you did not fire, roll on the Injury table. If you fired, gain the Medal for Conspicuous Gallantry for saving the ship.
55	You are rumoured to be involved in a notorious scandal. Roll Advocate or Carouse 8+ to dispel these rumours. If you succeed you gain one of Diplomat, Persuade or Deception. If you fail you reduce your Social Standing by 1.
56	You gain a reputation of leading your men from the front. Roll Leadership or Tactics (any) 8+. If you succeed you may increase any service skill by one. If you fail roll on the Injury table.
61	A command decision you take is incredibly successful leading to certain promotion. However credit is taken by a superior officer who holds a grudge against you for some reason. Gain this officer as a Rival and suffer a –1DM to your next Advancement roll.
62	You are part of a shore party that is caught up in a civil war that suddenly overthrows the current government of the planet. Roll Gun Combat (any) or Leadership) 8+. If you fail roll on the Injury table. If you succeed you help stabilise the situation, allowing the evacuation of non-essential personnel. Gain a Contact.
63	You excel in using misdirection and trickery both on the battlefield and in your private life. This gains you 1D3 Rivals who abhor your perceived lack of honour. You gain one of Tactics, Deception or Persuade.
64	Your ship is one of the first on the scene to rescue the survivors of a disaster. Roll either Medic 8+ or Engineer 8+. If you succeed, gain a Contact and a +2 DM to your next Advancement check. If you fail, gain an Enemy.
65	You have an opportunity to resolve a great mystery regarding a lost ship in the sector. Roll Sensors or Investigate 8+, if you succeed you increase your Social Standing by one. Fail and the opportunity passes you by.
66	You excel in your career. You are automatically promoted.

NAVAL INTELLIGENCE

Without faster-than-light communication, knowing when and where an enemy power will go is an exercise in analysis, prediction and luck. Naval intelligence characters are spies or tacticians, collating the reports of agents, scout ships and listening posts to determine the optimum placement of the Imperium's fast-response navy and the defence forces of the subsector navies.

Assignments: Choose one of the following:

- **Analyst:** You studied and predicted the actions of enemy fleets or governments.
- **Planner:** You guided the movements of whole navies.
- **Black Operations:** You don't talk about what you used to do.

Qualifications: Int 11+.

If you are aged 42 or more: -2 DM

Per previous non-naval career: -1 DM

Previous Service: Four previous naval terms including one term of Flight or Pilot, Imperial or Subsector Navy Only.

CAREER PROGRESS

	Survival	Advancement
Analyst	Edu 6+	Int 8+
Planner	Edu 7+	Soc 7+
Black Operations	End 8+	Int 6+

Ranks: O5 to O7.

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	20,000	Two ship shares
2	25,000	Weapon or Scientific Equipment
3	30,000	Ship's Boat or two ship shares
4	35,000	TAS Membership
5	40,000	Weapon or Retainer
6	50,000	+1 Soc, +1 Edu
7	60,000	Independent Operation or five ship shares

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Soc	Pilot (any)	Computers
2	+1 Edu	Tactics (naval)	Space Science
3	+1 Int	Gun Combat (any)	Advocate
4	+1 Dex	Stealth	Broker
5	+1 End	Comms	Sensors
6	Jack of all Trades	Admin	Computers

Roll	Specialist: Analyst	Specialist: Planner	Specialist: Black Operations
1	Admin	Admin	Deception
2	Life Science	Recon	Recon
3	Social Science	Leadership	Melee (any)
4	Space Science	Tactics (naval)	Gun Combat (any)
5	Computers	Remote Operations	Recon
6	Sensors	Sensors	Stealth

RANKS AND SKILLS

Rank Code	Analyst	Planner	Black Operations
O5	Tactics (naval)	Leadership	Recon
O6	+1 Edu	+1 Int	+1 Dex
O7			Retainer



MISHAPS

2d6 Mishap

- 2 Your analysis of an enemy tactic is flawed, leading to the enemy gaining a significant advantage over your side. You are court-martialled for treachery: roll Intelligence + Advocate. If successful you clear your name but must leave the service. If you fail you are sentenced to 4 years in prison and lose all Benefits from this career.
- 3 Your strategy goes badly wrong resulting in the deaths of many men. The subsequent inquiry reaches a Negligence verdict. Your career is over and you suffer a -2DM to your Mustering Out roll. You also gain an Enemy because one of the men who died as a result of your actions was the son of a vindictive officer who will see you punished in other, more creative ways.
- 4 A mission goes disastrously wrong. Roll Tactics (naval) 8+ to partially salvage the situation. If you fail, lose any one naval Contact or Ally. If you succeed, gain an extra skill roll. Either way, you leave this career.
- 5 One of your subordinates turns out to be an enemy intelligence agent. The fact he was able to operate under your watch ruins your career.
- 6 Severely Injured – roll twice on the naval injury table and take the lower result.
- 7 Whilst your risk taking leads to many successful missions eventually your luck runs out and you manage to infuriate all your superiors who tire of your antics. You receive a burn notice and are forced from the service.
- 8 Injured – roll on the Injury table.
- 9 A civilian is killed during an assignment where you are forced to defend yourself. You are cleared of wrong-doing but the guilt is unbearable. You leave the service but gain +1 Advocate. Roll Endurance 8+. If you fail you turn to either alcohol or drugs to alleviate the guilt, becoming dependent.
- 10 You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, but must leave the navy.
- 11 You are outwitted by an enemy commander and one of your grand stratagems is defeated. Gain an enemy.
- 12 You are enmeshed in a telepathic plot, and conditioned as a sleeper agent. Your conditioning is discovered before you are activated, and you are ejected from the navy.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You are assigned a secret mission. You may choose to roll on the Agent (Intelligence) events table instead (see page 11 of the <i>Traveller</i> main rulebook).
13	You are attacked by an assassin. Roll Dexterity+Melee (any). If you fail, roll on the Injury table. If you succeed, gain an Enemy and Persuade 1 as you extract the enemy's name from your foe.
14	War can only be won through sacrifice, and a particular situation calls for sacrificing a ship or colony as a gambit. If you give the order, gain the survivors as an Enemy. If you refuse, the battle is lost, and you suffer a -4 DM to your next Advancement roll.
15	You do things that you are not proud of, and will never speak of. Either gain Stealth, or take a +4DM to your next Advancement roll (in any naval career).
16	An investigation takes on a dangerous turn. Roll Investigate 8+ or Streetwise 8+. If you fail, roll on the mishap table. If you succeed, increase one of these skills by one level: Deception, Jack of all Trades, Persuade or Tactics (any).
21	You establish a network of contacts. Gain 1d3 Contacts.
22	You perform a tour of border worlds. Roll Social 10+ to gain either Animals, Survival, Recon or a Contact.
23	You are attacked by a hostile native lifeform during a survey mission. Roll Intelligences + Animal (training). If you succeed, you befriend the animal and can keep it as a pet. If you fail, you are Injured (roll on the Injury table).
24	You have to baby-sit a troublesome ambassador. Roll Steward 8+. If you succeed, gain him as a Contact. Fail, and he makes trouble for you as a Rival.
25	The base you are at is targeted by a terrorist bomb, which you discover. If you try to disarm it, roll Explosives 8+. If you succeed, you gain a Sunburst for Extreme Heroism and an Ally. If you fail, roll twice on the injury table and take the lower result. If you flee, the bomb goes off and damages the base.
26	The people of one world beg for assistance from naval military forces, but you are ordered not to intervene. The peoples' cause is just, and you can 'unofficially' aid them by secretly supporting them with weaponry or intelligence. If you do so, roll Deception 8+. If you gain an Ally. If you fail suffer a -4DM to your next Advancement roll.
31-36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41-46	Naval Event. Roll on the Naval Events table (see page 38).
51	You overhear some secret of the nobility or high society.
52	You are forced to use mercenaries to hide government involvement and get caught up in a major action. Roll Gun Combat (any) or Tactics (any) 8+. If you succeed you manage to save the day and gain a Contact, if you fail roll on the Injury table.
53	You are part of a surveillance team watching a hostile spy network. Gain one of Deception or Recon.
54	You are part of a team sent to extract another agent from hostile territory. Roll Pilot (any), Stealth or Comms 8+. If you succeed you manage to rescue him and gain an Ally. Fail and he is killed, the recriminations that follow afterwards gain you a Rival.
55	Enemy agents infiltrate your team, leading to a firefight. Roll Gun Combat (any) or Melee (any). If you fail roll on the injury table. If you succeed you save your team and gain a Contact.
56	You work closely with a civilian intelligence agency, gaining their respect. You may automatically qualify for an Agent career after you finish serving in the Navy. If you decide not to do so you gain a Contact within the civilian agency.
61	You go undercover to investigate an enemy. Roll Deception 8+. If you succeed, roll immediately on the Rogue or Agent events table and make one roll on any Specialist skill table for that career. If you fail, roll immediately on the Rogue or Agent mishap table.
62	You come across a potentially valuable discovery, such as a mineral deposit or alien technology cache. You can choose to either report the discovery, or just secretly mark the location and vow to return when you leave the Navy.
63	You are involved in operations to thwart a terrorist network. Roll Deception or Persuade 8+. If you succeed the terrorists are thwarted and you gain a Contact. If you fail you gain an Enemy.
64	You are part of a team inserted into the territory of a hostile government to gather intelligence on a new class of ship being constructed at their naval dockyards. Roll Recon, Stealth or Computer 8+. If you Succeed you are able to come away with the information required, gain one of Engineer (any) or Computer. If you fail roll on the Injury table.
65	Your talents are used against a group of notorious pirate raiders. Roll Investigate or Streetwise 8+. If you succeed you are able to infiltrate their network, gain one of Deception, Streetwise or Persuade.
66	You excel in your career. You are automatically promoted.

NAVAL ENGINEER

A character at this stage of his career is one of the most respected and skilled technicians in the fleet, and has a significant role in designing and planning the future course of naval engineering. Only the Imperial or subsector navies have engineers of this calibre – the planetary navies make do with outdated designs or retired ships.

Assignments: Choose one of the following:

- **Senior Engineer:** You were chief engineer at a naval base or on board one of the mightiest warships in the Imperium.
- **Ship Architect:** You designed and built new starships.
- **Researcher:** You pursued new technologies or reverse-engineered alien ones.

Qualifications: Edu 11+.

If you are aged 42 or more: –2 DM

Per previous non-naval career: –1 DM

Previous Service: Four previous naval terms including one term of Engineering or Gunnery, Imperial or Subsector Navy Only.

CAREER PROGRESS

	Survival	Advancement
Senior Engineer	Int 7+	Edu 7+
Ship Architect	Edu 6+	Int 8+
Researcher	Int 8+	Edu 6+

Ranks: O5 to O7.

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	20,000	Two ship shares or Retainer
2	25,000	Weapon or Scientific Equipment
3	30,000	Ship's Boat or two ship shares
4	35,000	TAS Membership
5	40,000	Prototype or three ship shares
6	50,000	+1 Int, +1 Edu
7	60,000	Independent Operation or five ship shares

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Int	Computer	Admin
2	+1 Edu	Comms	Computers
3	+1 Str	Science	Engineer (any)
4	+1 Dex	Engineer	Tactics (naval)
5	+1 Edu	Vacc Suit	Gunnery (any)
6	Jack of all Trades	Zero-G	Leadership

Roll	Specialist: Senior Engineer	Specialist: Ship Architect	Specialist: Researcher
1	Zero-G	Engineer (naval)	Science (any)
2	Engineer (any)	Engineer (any)	Engineer (any)
3	Leadership	Computers	Computers
4	Remote Operations	Science (any)	Science (any)
5	Mechanic	Mechanic	Sensors
6	Engineer (any)	Pilot (any)	Engineer (any)

RANKS AND SKILLS

Rank Code	Senior Engineer	Ship Architect	Researcher
O5	Jack of all Trades	Engineer (naval)	Science (any)
O6	+1 Edu	+1 Int	+1 Int
O7	Retainer	Retainer	Retainer



MISHAPS

2d6 Mishap

- 2 An accident in the engine room or base exposes you to a blast of radiation (2d6 x 100 rads).
- 3 You uncover a major engineering flaw which the fleet, for cost reasons, attempts to cover-up. You go public with the information you are forced to resign your position but do so in the knowledge you have saved many lives. Your actions gain you a Contact in the High Command who respects your devotion to duty towards fellow navy personnel.
- 4 You are accused of malpractice or criminal behaviour. You may stay on in this career if you sacrifice all benefit rolls and reduce your Social Standing by two.
- 5 Whilst a brilliant technician you have never been particularly well suited to the discipline of Navy service. Your maverick nature gets you into trouble one time to many and you have to look for employment elsewhere.
- 6 Severely Injured – roll twice on the naval injury table and take the lower result.
- 7 The Navy fails to realise your brilliance in your field, instead relying on the opinions of intellectual third raters and unimaginative dolts. Your resignation is accepted with glee by your commanders, perhaps you should not have threatened resignation so forcefully in an attempt to make them change their minds?
- 8 Injured – roll on the Injury table.
- 9 Through diligent research a project you are working on makes a profound discovery that will save the fleet millions in costs. However your research is appropriated by a rival who has friends in high places, your protestations lead to a court martial and you are thrown out of the service. You gain Engineering, but also gain a Rival.
- 10 An attempt to reverse-engineer an alien vessel goes awry, and you got misjumped into deep space. Gain Survival 1, Streetwise 1 or Pilot (any) 1 on your way home.
- 11 An unauthorised experiment goes wrong and you receive the blame.
- 12 Corporate agents recruit you to help them get a lucrative naval contract. You believe that they do have the best product in any case and if they are offering money to make you say what you were going to say anyway, more fool them. The presiding officer at your court martial did not quite see things the same way, unfortunately.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You come into possession of a piece of alien or ancient technology. Roll Science 8+ at a -4DM to decipher its function. If you succeed, gain either two extra Benefit rolls or a +4 DM to your next Advancement roll. If you fail, you still keep the cryptic device.
13	You mentor a brilliant but troubled young scientist. Roll Persuade 8+. If you succeed, gain your protégé as an Ally. If you fail, he breaks down and leaves the service, becoming a criminal. Gain him as a Rival and take a -2 DM to your next Advancement roll.
14	A large project is running over budget. Do you cut costs or keep going? If you keep going, roll Engineer (any) 8+ at a -4 DM. If you fail, you suffer a -4 DM to your next Advancement roll. If you succeed, you salvage the project and gain the Prototype Benefit.
15	During a tour of one of your new ships, a noble takes an interest in you. Gain a Contact.
16	You're a miracle worker, even if you do multiply your repair times by a factor of 4. Either gain Jack of all Trades, or take a +4DM to your next Advancement roll (in any naval career).
21	You serve under a renowned commander who encourages his men to improve their skills wherever possible with intense training programs. Gain an extra skill by rolling on your specialist skills and training table.
22	You are assigned to work on a secret project. Gain one of Medic 1, Any Science (any) 1, Engineer (any) 1, Computers 1 or Investigate 1.
23	You become entangled in a bureaucratic morass that distracts you from your work. Gain one of Admin 1, Advocate 1, Persuade 1 or Diplomat 1.
24	A group of businessmen from a ship building company offer you a job as a consultant. If you accept you must leave the service, but gain +1 DM to one Benefits roll and a Contact. You can automatically enter a career in the Civilian Corporate or Scholar Scientist professions next term.
25	You join a gambling circle at your base. Gain Gambling. You may then bet any amount of benefit rolls, and roll Gambling 8+. If you succeed, gain one and a half times as many rolls as you wagered, rounding up. If you fail, lose any wagered rolls. Either way, gain another gambler as a Rival.
26	A long assignment puts a strain on a friendship. Downgrade one Ally to a Contact, or lose one Contact.
31-36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41-46	Naval Event. Roll on the Naval Events table (see page 38)
51	You are assigned to help an absent-minded researcher. Gain him as a Contact.
52	By returning to your books and studying various theorems you are able to solve a design problem that has plagued your current project. Gain one of Engineer (any) or Computers.
53	You are part of a team overseeing the construction of a new class of warship when hostile agents attack the facility. Roll Gun Combat (any) or Melee 8+. If you fail roll on the Injury table, if you succeed you are able to choose your follow up assignment and can pick any one of your Specialist skills to gain a rank in.
54	You work on systems designed to give personnel help in their duties. Gain one of Astrogation, Gunner or Engineer.
55	The head of a planetary government pauses to talk to you during a visit on your ship. Roll Diplomat or Steward 8+. If you fail you manage to insult him and cause an 'incident', causing you to automatically fail your next Advancement check. If you succeed your commanding officer is very pleased, you gain a +4DM to your next Advancement check.
56	Gain one of Engineer (any), Comms, Sensors or Space Sciences (any) as you are sent to a training program.
61	Your brilliant design ideas only seem to help hostile races. Unimpressed superiors lead to a -4DM to your next Advancement check.
62	A hot shot Navy test pilot helps with your team's latest modifications. Roll Carouse or Engineer (any) 8+, if you succeed he is so impressed by your ideas that he teaches you some flying tricks, gain Pilot (any) 1, fail and he sees you as an arrogant rear echelon type and you gain a Rival.
63	You are given advanced training in a specialist field. Throw Education 8+ to gain one level in any skill you already have.
64	Budget cuts leads to your program running into difficulties. Roll Diplomat, Persuade or Advocate 8+. Succeed and the project continues to be funded, gain a +1DM to one benefits roll. Fail and the project is cancelled, lose the benefit roll for this term.
65	A prototype vessel you were working on is rushed into duty whilst on its shakedown cruise. Roll Engineer (any) 8+, succeed and you are able to ensure the ship fulfils its mission and you gain a Contact.
66	Your brilliant and innovative design ideas get you noticed by your superiors. You are automatically promoted.

HIGH COMMAND

Only the best of the best reach this career. A character who has entered into the High Command career is already a legend and a hero of the Imperium, a commander whose name will be spoken of in the same breath as the greatest admirals and conquerors of the past.

Assignments: Choose one of the following:

- **Legendary Captain:** You were one of the great tacticians of the Imperial Navy
- **Fleet Commander:** You commanded trillions of credits worth of squadrons.
- **Daredevil:** You broke all the rules, but you did what no-one else could.

Qualifications: Int 12+

Per previous non-naval career: -1 DM

If you have Tactics (Naval) 3+: +1 DM

If you have Leadership 3+: +1 DM

Previous Service: Six previous naval terms; Imperial navy terms only.

Ranks: O6 to O10.

CAREER PROGRESS

	Survival	Advancement
Legendary Captain	Int 10+	Soc 8+
Fleet Commander	Int 8+	Soc 10+
Daredevil	Soc 9+	Int 9+

Ranks: O6 to O10.

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	30,000	Three ship shares
2	40,000	Weapon or Scientific Equipment
3	50,000	Ship's Boat or three ship shares
4	60,000	Independent Operation or five ship shares
5	70,000	Cutter or five ship shares
6	80,000	+1 Int, +1 Soc
7	100,000	Imperial Consort

SKILLS AND TRAINING

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Soc	Leadership	Space Science
2	+1 Edu	Tactics (naval)	Tactics (naval)
3	+1 Int	Pilot (any)	Computers
4	+1 Soc	Comms	Advocate
5	Discipline	Diplomat	Admin
6	Diplomat	Admin	Investigate

Roll	Specialist: Legendary Captain	Specialist: Fleet Commander	Specialist: Daredevil
1	Leadership	Admin	Pilot (any)
2	Tactics (naval)	Diplomat	Tactics (naval)
3	Instruction	Comms	Leadership
4	Investigate	Investigate	Gunner (any)
5	Discipline	Leadership	Space Science
6	Gunner (any)	Tactics (naval)	Deception

RANKS AND SKILLS

Rank Code	Skill or Benefit
O6	TAS Membership
O7	Retainer
O8	Soc 10 or +1 Social Standing
O9	
O10	Soc 12 or +1 Social Standing



MISHAPS

2d6 Mishap

- 2 Your actions are seen as war crimes by some ambitious politicians and you are forced to retire to attempt to clear your name. Gain Advocate but reduce your Social Standing by one.
- 3 Your heroic actions make the newsfeeds and you are feted for a short time. However someone comes out of the woodwork to prove how your actions were either over-stated or were the work of some other, unsung hero and you took the credit. Roll Intelligence + Leadership. If successful, this detractor is proved to be a troublemaker and is discredited. If you fail, your reputation is tarnished. -1 to Social Standing.
- 4 Your ship is ambushed and destroyed. The loss of so many good friends among her compliment leaves you unable to continue in your career.
- 5 A cabal of political rivals destroy your career. Roll Deception or Advocate 8+ to salvage your benefits from this term.
- 6 Severely Injured – roll on the Injury table twice and take the lower result.
- 7 An enemy from your past returns to haunt you and you find yourself in a vendetta against him or her that diverts your attention away from your duties, forcing you to leave the service. Gain an Enemy.
- 8 Injured – roll on the Injury table.
- 9 What seems to be a decisive fleet manoeuvre in a battle results in a costly defeat and you are called to account by a Naval Command Grand Jury. Roll Advocate 8+ to clear your name. If you fail you are forced to retire on full benefits but lose 1 to Social Standing.
- 10 You are asked to leave the navy to pursue a secret assignment. Gain the Independent Operation benefit.
- 11 After a terrible defeat the blame comes to fall upon your shoulders.
- 12 Someone in the high command fears that you might take your fleet and go renegade. You are recalled and given a boring desk job as a 'reward'. You are unable to stand the monotony and resign.

EVENTS

d66	Event
11	Disaster! Roll on the mishap table, but you are not ejected from this career.
12	You command a dangerous mission deep in enemy territory. Gain either Tactics, Survival, Diplomat or an alien Contact.
13	You command a ship that is severely damaged in battle. Do you choose to abandon ship, or keep fighting even as it burns around you. If you keep fighting, roll Dexterity + Gunnery (any). If you succeed, you take the enemy out before fleeing, and gain an extra benefit roll. If you fail, you get no extra benefit roll. Either way, roll on the Injury table if you keep fighting.
14	You write a book on tactics that becomes a set text at the naval academy. Gain an extra benefit roll.
15	Your vessel participates in a diplomatic mission. Gain one of Recon 1, Diplomacy 1, Steward 1 or a Contact.
16	You have the opportunity to abuse your position for profit. If you do so, gain an extra Benefit roll from this term. Refuse, and you get a +2 DM to your next Advancement roll.
21	You become deeply involved in politics, becoming a player in the political intrigues of government. Gain one level in Advocate, Admin, Diplomacy or Persuade, but also gain a Rival.
22	You manipulate your way through high command. Gain one level of Carouse, Diplomat, Persuade or Steward, as well as a Rival and an Ally.
23	An enemy ship matches your threatening posture, and your orders are to show your readiness for battle. Roll Discipline 8+. If you succeed, the enemy ship breaks off. Gain a +2DM to your next advancement roll.
24	You have to baby-sit a troublesome ambassador. Roll Steward 8+; if you succeed, gain him as a Contact. Fail, and he makes trouble for you as a Rival.
25	You are present at one of the great naval engagements of recent times. Gain Tactics 1.
26	Your expenses grow proportionally with your role. Lose one Benefit roll.
31–36	Life Event. Roll on the Life Events table (see page 34 of the <i>Traveller</i> main rulebook).
41–46	Naval Event. Roll on the Naval Events table (see page 38)
51	A group of businessmen from an supplies company offer you a job as a consultant. If you accept you must leave the service, but gain +1 DM to one Benefits roll and a Contact. You can automatically enter a career in the Civilian Corporate profession next term.
52	You are assigned to the spearhead of the attack. As you approach, you receive a transmission from advance scouts warning that the enemy presence is much stronger than anticipated. If you break off, you automatically survive. If you continue the mission, roll Pilot or Flyer 8+. Pass, and you survive the attack. Fail, and you are shot down – roll twice on the Injury table and take the lower result.
53	You are engaged in first contact with a minor species. Roll Diplomacy 8+; if you fail, then roll on the Injury table.
54	You attempt to extricate your command from a very unfavourable position. Roll Tactics (Navy) or Leadership 8+. If you succeed gain +1 Social Standing, if you fail roll on the Injury table.
55	You co-ordinate a major evacuation. Roll Leadership or Admin 8+. If you succeed you gain a powerful Ally amongst those you save, if you fail you gain an Enemy who blames you for the unnecessary loss of lives.
56	You are placed in charge of a court martial over an officer who's actions led to a major military defeat. Gain one of Advocate, Investigate or Admin.
61	You are given a key role against hostile forces during a period of minor conflict. Roll Tactics (Naval) or Leadership 8+. If you fail roll on the Injury table. If you succeed the campaign is successful and you are the guest of honour at innumerable receptions. Gain one of Carouse, Diplomat or add one to your Social Standing.
62	You are put into a difficult situation by political rivals. Roll Diplomat or Advocate 8+. If you fail you lose one from your Social Standing. If you succeed you deftly turn the situation to your favour and gain a rank in Diplomat, Persuade or Investigate as you manage to turn the tables on those who put you into the situation in the first place.
63	Your cautious approach during a major engagement gains you both admirers and critics within the navy. Gain 1D3 Contacts and 1D3 Rivals.
64	You are challenged to a duel for your honour and standing. If you refuse, reduce your Social Standing by 1. If you accept, roll Melee (blade) 8+. If you succeed, gain one Social Standing. If you fail, roll on the Injury table and reduce your Social Standing by one. Either way, gain one level in Melee (blade), Leadership, Tactics (any) or Deception.
65	You are given a better ship to command. Gain Engineer (any), Gunner (any) or Sensors.
66	You excel in your career. You are automatically promoted.

NAVAL EVENTS

Like most military careers, life in the navy consists of long periods of intense boredom and repetitive tasks, mixed with the occasional unexpected moment of terror and extreme danger.

NAVAL EVENTS

Roll 2d6	Event
2	Just a Flesh Wound: The character is grazed by shrapnel or stray munitions. Roll two dice on the Injury table, choosing the higher result.
3	Special Mission: The character is assigned a secret mission by the navy. The mission goes off without a hitch, but something from the mission may show up during the campaign. Discuss the exact nature of the mission with your Referee.
4	New Rival: Someone on board ship or encountered while serving takes a strong dislike to the character, and becomes a rival.
5	Shore Encounter: During a period of liberty, the character has a curious and memorable encounter with a civilian. Roll 1d6: 1–2: Romantic, 3: Alien, 4: Criminal, 5: Conspiracy, 6: New Contact.
6	New Contact: The character picks up a new contact. Roll 1d6: 1–3: Naval, 4–5: Civilian, 6: Superior officer or unusual.
7	Cross Training: You receive training in a different branch of the navy. Roll on any Service Skill table besides your own. You can join this branch if you meet its requirements next term with a +4DM to enlistment.
8	Extra Training: You are given extra training. Roll Education 8+ to gain any one skill.
9	Lifesaver: You save the life of a crewman who becomes a lifelong friend. Gain a new Ally.
10	Holding Action: You are on board a warship that holds off a vastly superior hostile force for a prolonged period of time before relief arrives. This action results in all the crew being considered heroes both within the navy and amongst the wider population. Increase Social Standing by one or gain a +1 DM to your next Benefits roll.
11	Medal: Roll over (10 – the number of terms since you last won a medal) to win a medal. If you roll the indicated number or higher, you are awarded the citation for Meritorious Performance of Duties. If you roll three or more higher than the indicated number, you are awarded a Medal for Conspicuous Gallantry.
12	Unusual Event: Something odd has occurred. Roll 1d6: 1: One of your crewmates is a secret telepath, who offers to train you in psionics. You may test your Psionic Strength Potential and, if strong enough, take the Psionist career next term. 2: You are framed for a crime, and imprisoned for the remainder of this term. You are then ejected from the navy. 3: Your ship misjumps, and has to make a long voyage home. Increase your age by 1d6 years and gain half as many skills, rounding up. 4: You uncover evidence of a conspiracy within the navy. Either join them, or reveal their existence and gain 1d3 Enemies. 5: You are captured and interrogated by agents of a foreign power. You manage to escape or be rescued (or did they let you go...?). 6: Your ship encounters an anomaly, possibly connected to the Ancients.

NEW SKILLS

High Guard introduces two new skills to the *Traveller* skill list. **Engineer (naval)** is only used in cases where characters are designing and building their own vessels, which is outside the scope of most games. Similarly, **Discipline** is usually used only in campaigns where the characters are still in the navy.

Engineer (naval)

This speciality of the Engineer skill covers the design and construction of starships. It is of limited practical use in the field,

but can be substituted for any other Engineer speciality at a –2DM when dealing with starship systems. For example, a character with **Naval Engineer 3** could make a skill test calling for **Engineer (life support)** with a –2 DM when trying to repair a starship's air scrubber, but could not use his **Naval Engineer** skill to fix a malfunctioning navigation system on an air/raft.

Discovering a design flaw in a prototype ship underground shakedown: 1–6 days, Intelligence, Difficult (–2)

Designing a new class of starship: 1–6 years, Education, Hard (–4)

Discipline

The martial Discipline skill covers self-control, ingrained reflexes and training. A character with a high Discipline is adept at following orders and procedures. In game terms, as long as the character is in a situation covered by his training, he may reduce any negative DM by an amount equal to his Discipline skill. This may be done a number of times each day equal to his Discipline skill. This can only be applied to skills that the character already has at a skill level of 1 or more.

For example, a character with Discipline 1 could reduce a DM of -2 to -1, or a DM of -4 to -3 once a day. A character with Discipline 3 could reduce a DM of -2 to +0, or of -4 to -1 up to three times per day.

Discipline cannot turn a negative DM into a positive DM – training allows a character to do the right thing and ignore distractions, but does not give him any extra competence or ability.

NEW BENEFITS

Imperial Consort: The character is offered the chance to wed a member of a highly influential noble family. This consort gives +2 Social Standing, and a dowry of 2d6 x 10,000 credits.

Independent Operation: The character may set up his own business or group that works with the navy, such as a mercenary group, spy network or private think-tank. The navy will pay up to 20 ship shares or 1d6 MCr towards initial start-up costs, as long as the character agrees to favour them as a client.

Retainer: The navy wishes to retain the character's services, calling on him as a consultant or advisor. The character will be paid Cr. 1,000 per month on condition that he remain available for naval service when called upon.

Prototype: You are given a prototype ship component or technology, such as an advanced weapon or combat implant. This item is technically still the property of the Imperial navy, but you are permitted to test it in the field.

ALIEN NAVAL CHARACTERS

The most common setting for the *Traveller* game, the Third Imperium, has several major alien races that players and Referees can choose to create characters from. The rules for Naval careers above are aimed primarily at Imperium characters, but the other alien powers have their own space navies.

Aslan

Aslan naval forces break down clearly by gender lines – males take command, and females take every other role. Often, the command staff of an Aslan cruiser will be a single pride, with the alpha male in command. Aslan forces traditionally favour heavy fighter screens over capital ships.

Modifiers: Male Aslan receive a +1 DM to all Advancement rolls using Str, Dex or End. Female Aslan receive this +1 DM bonus to Advancement rolls using Int, Edu or Soc. However, they both suffer a -1 DM penalty to their Cash Benefits rolls when mustering out.

Droyne

Droyne worlds are rarely rich enough to have their own naval forces. They do make excellent mechanics and engineers, and their small stature means they can be crammed four to a stateroom. Some megacorporations hire Droyne ex-naval engineers.

Modifiers: Droyne have a +1 DM when Qualifying for the Support, Engineer or Naval Engineer careers.

Hivers

The Hiver fleets are notoriously powerful and dangerous. The Hivers do not use fighters normally, preferring to deploy combat drones instead. Their massive capital ships are among the largest in the galaxy; some are more like flying cities than mere vessels.

Modifiers: Hivers cannot choose the Pilot career, but have a +2 DM when qualifying for Naval Intelligence careers.

K'Kree

The K'Kree dislike space travel, and have few ships. They make poor naval officers.

Modifiers: K'Kree have a -1 DM to qualifying for all Naval careers.

Vargr

Vargr find the strict discipline of the Navy stultifying, but can make skilled officers if they persevere. They are especially adept as pilots and gunners.

Modifiers: Vargr automatically gain a +1 DM modifier to any Qualification tests to enter the Flight, Pilot or Gunner career path, but have a -2DM on all Discipline checks.

Zhodani

The psionic Zhodani have a powerful navy, co-ordinated by telepathic officers. The strict hierarchy and command structure of the navy suits their authoritarian society.

Modifiers: Zhodani have a +1 DM to all naval Qualification rolls.

Uplifted Animals

The only uplifted animals that are especially suited to a Naval life are cetaceans, who make excellent navigators and have a +2 DM to Qualification rolls for the Flight career.

CHARACTER CREATION EXAMPLE

The following example provides an illustration of the process of creating a human navy character. Actual die throws are shown in brackets, as are comments on the application of game rules. Die modifications are labelled DM, as is standard in *Traveller* products.

Harek Haradson, Fighter Pilot

First, Harek rolls for his characteristics. He gets a 7, 7, 9, 6, 7 and 12. He allocates the characteristics as follows: Strength 7 (DM +0), Dexterity 12 (DM +2), Endurance 7 (DM +0), Intelligence 9 (DM +1), Education 7 (DM +0) and Social Standing 6 (DM +0). His Education of 7 gives him 0+3 background skills. He comes from a High-Tech Asteroid colony, so he picks up Zero-G 0 and Computers 0. He also learns Space Science 0 from the Education list.

Harek attempts to enter naval college, but his low social standing prevents him [required roll of Soc 6+ to enlist, rolls a 5]. He will have to work his way up through the ranks.

FIRST TERM:

Harek enlists in the Subsector Navy as an ordinary crewman [enlistment requires Int 6+, and he rolls a 9, +1 for his Intelligence score for a total of 10]. His basic training gives him a grounding in all aspects of ship operation, and his knack for piloting is quickly discovered. [As this is his first term, he picks up all the service skills at level 0, and Piloting (spacecraft) at level 1.] He distinguishes himself [rolling an 13 on the Event table] and wins his commission [using the +4 DM from the Event to ensure he becomes an officer, then rolls an 8 for Advancement].

As a junior officer, he is trained in sensor operations as well as behaviour befitting his new rank [gains Sensors 1 from his Advancement, Melee 1 from being a Rank 1 officer and Leadership 1 from being a Rank 2 Officer].

SECOND TERM:

Ambitiously, Harek decides to transfer to the Pilot branch of the service [Qualification Dexterity 8+, rolls an 8, +2 for his Dexterity DM]. He picks up Gunner 0 as his basic training, and Athletics 1 as a Fighter Pilot.

He survives his term by the skin of his teeth [needs a 7+ to survive, rolls a 5, +2 for his Dexterity]. While on patrol, he encounters a colony of asteroid miners under attack by raiders from a neighbouring system. The subsector navy has decided this is an internal matter, and will not intervene, but Harek cannot stand idly by [rolls a 56 on the events table]. He rallies his squadron and leads a secret strike against the raiders [the Referee and Harek's player agree that he actually launches an attack instead of just passing on information]. One of the asteroid miners becomes a firm friend of Harek [gains an Ally].

He is promoted once more [rolls a 10 for Advancement] and studies the art of war [gains Tactics (naval)].

THIRD TERM:

Continuing on as a pilot, Harek is trained in EVA operations [gains Vacc Suit 1]. He avoids any mishap, but his ship becomes involved in a major engagement [rolls a 52 on the event table].

The enemy force has taken up a strong defensive position in close orbit of the world of Ataris. Harek's squadron is ordered to attack but Harek breaks off at the last moment.

His commanding officer is furious with Harek's disobedience, and he is ejected from the navy [rolls a 6 for Advancement, but the -4 DM from the event means that he is below the threshold, rolling less than the total number of terms served].

His benefits for three terms in the subsector navy are 37,000 Credits, a Ship's Boat, two Ship Shares, and higher standing [+1 Soc].

FOURTH TERM:

Harek has left the subsector navy, but he is a veteran naval officer and is offered a position in a planetary naval. He has spent three terms in the navy already, and this experience pays off – he can take up a position and rank analogous to his old posting. [Two terms in the navy allow him to automatically qualify for the Pilot career, and he enters it at the minimal rank of O2].

He continues to improve his mastery of tactics [gaining Naval Tactics again]. One mission is especially hazardous [rolls a 14 for event, but passes the test], and he gains a Contact and is awarded a Citation for Meritorious Conduct Under Fire. Promoted once more, Harek realises that after sixteen years in the navy, his once-promising career is floundering in a backwater naval force. [He passes his first Aging roll without a problem.] He decides to leave the navy and strike out on his own...

[He picks up another 10,000 credits for his final benefit roll from his terms. He also has a +2 DM left over from his Citation, so he can convert that into another benefit roll, which gives him Armour].

ADDITIONAL NOTES:

With no connections to other characters, Harek gains no extra skills. He takes Astrogation and Flyer from the skill package for the party.

Strength 7 (DM +0)
Dexterity 12 (DM +2)
Endurance 7 (DM +0)
Intelligence 9 (DM +1)
Education 7 (DM +0)
Social Standing 7 (DM +0)

Astrogation 1, Flyer (grav) 1, Zero-G 0, Computers 0, Space Science 0, Pilot (starships) 1, Vacc Suit 1, Discipline 0, Mechanic 0, Gun Combat 0, Sensors 1, Melee 1, Leadership 1, Gunner (turret) 1, Athletics 1, Tactics (naval) 2.

Armour, Ship's Boat, Two Ship Shares, 47,000 credits.
Four terms.

SPACECRAFT OPTIONS

The *Traveller* core rulebook presented several options for spacecraft design. This chapter adds a host of new subsystems and components, which can be part of a new design or retrofitted into an old one.

STRUCTURE

These options alter the basic framework of the ship, and require considerable time in a shipyard to install.

Reinforced Structure: By adding internal armour protection and structural reinforcement, a ship can withstand more structural damage. For every 5% of the ship's total tonnage allocated to reinforced structure, the ship gains extra structure points. Reinforced structure costs MCr 0.2/ton.

Reinforced Hull: Reinforcing the external hull is easier than reinforcing internal systems. For every 10% of the ship's total tonnage allocated to reinforced hull, the ship gains extra hull points. Reinforced hull costs MCr 0.1/ton.

Armoured Bulkheads: Armoured bulkheads protect any internal components to which they are added. Adding internal bulkheads requires tonnage equal to 10% of the tonnage of the protected system, but negates the first hit on that system. *For example, if a ship has a 30-ton power plant, then adding armoured bulkheads to protect the reactor costs three tons, but means the first Power Plant hit is ignored. Armoured bulkheads cost MCr 0.2/ton.*

Modular Hull: Up to 75% of a ship's internal tonnage may be designated as modular, allowing it to be swapped out easily. This tonnage may not include the bridge, power plant, drives or any structural or armour options. Different modules can be installed for different tasks. Making a modular hull increases the cost of the overall hull by the percentage designated as modular.

Example: A hundred-ton hull normally costs MCr 2.0. If 30% of the ship's hull is going to be made modular, then the cost of the hull is increased to MCr 2.6, 130% of the original cost. This means that 30 tons of the ship's components could easily be swapped out from mission to mission. When hauling passengers, the ship could install a module with six staterooms and six tons of cargo space (totalling 30 tons). When going into combat, the ship could install a module with a triple turret and a fighter hangar totalling 30 tons.

ARMOUR

There are limitations on the amount of armour that can be added to a spacecraft due to the technology level of the metallurgy. This is defined by the table below.

Armour does not need to be added in 5% elements, but it must be added in whole armour point values. *For example, the minimum element which can be added for Titanium Steel is 2.5%, which is a single point of armour.*

Armour options must be added when the ship's armour is installed, and cannot be easily retrofitted.

Heat Shielding: Heat shielding protects the ship against the heat of re-entry or other heat sources such as proximity to a star. A ship without a functioning gravitic drive attempting re-entry without heat shielding will burn up. If equipped with undamaged heat shielding, re-entry is successful on easy (+4) Pilot, 10–60 minutes skill check, with failure resulting in burn up (this task is often undertaken more slowly). Damage to the ship from proximity to a star in the absence of heat shielding are at the referee's discretion, but should be harsh! Heat shielding does not provide protection against starship combat weapons; even fusion weapons. Heat shielding costs MCr 0.1 per ton of hull

Reinforced Hull

Hull Size	Reinforced Structure per 5%	Reinforced Hull per 10%
10–90	1	3
100–1,000	2	5
1,000–2,000	4	10
3,000–10,000	8	20
20,000+	16	40

Armour

Armour Type	TL	Protection	Cost	Max Armour
Titanium Steel	7	2 per 5%	5% of base hull	TL or 9, whichever is less
Crystaliron	10	4 per 5%	20% of base hull	TL or 13, whichever is less
Bonded Superdense	14	6 per 5%	50% of base hull	TL

Radiation Shielding: Radiation shielding improves the ship's protection against radiation from both natural sources (solar flares, pulsars) and artificial (nuclear bombs, meson hits). A ship with radiation shielding decreases the amount of rads absorbed by all crew by 1,000, treats the bridge as if it is hardened and provides 6 extra armour points against radiation damage from nuclear weapons, particle beams and fusion guns. Radiation shielding costs MCr 0.25 per ton of hull.

POWER

Emergency Power: An emergency power system allows a vessel to keep functioning even when its main power plant has been knocked offline by damage and is a cheaper alternative than a second backup power plant as described on page 106 of the main rule book". If the power plant suffers a third hit, the emergency power system activates, and allows the ship to function normally for 30 minutes or 5 Combat Rounds of full operations – or until it suffers another power plant hit.

An emergency power system has a tonnage and cost equal to 10% of the tonnage and cost of the main power plant.

Chemical power plants: A chemical power plant is 40% bigger than its fusion equivalent, costs MCr 1.25 per ton and requires 20 times the amount of fuel for the same endurance.

Fission power plants: Page 109 of the core rule book (first printing) is now amended. Fission plants provide the same power as a fusion power plant and can provide any power performance level. However, they are twice the size and price of a fusion power plant. They are available at TL7.

Solar Panel: Extendible solar panels provide backup power for vessel's power plants. They are sometimes installed in scout or mining ships, giving them greater range and endurance. The size of solar panels required to power a ship is $1/10^{\text{th}}$ that of the main power plant, to a minimum of 0.5 tons. If the panels are fitted to a ship without a power plant, then assume the (non-existent) main power plant is sized to deliver a performance rating of 1. A ship equipped with solar panels consumes power plant fuel at one-quarter the normal rate as long as it is only engaged in minimal manoeuvring and does not fire weapons. Minimal manoeuvring does not include long periods at full thrust, so solar panels are useless for trade vessels. Solar panels cost MCr 0.1 per ton. No power plant fuel is consumed, and endurance is considered as infinite, if the ship is not manoeuvring, using active sensors or refining fuel for use. Jump cannot be entered with solar panels deployed.

For example, a laboratory ship has Power Plant D, which takes up 13 tons. Adding solar panels would consume 1.3 tons (one-tenth of 13) and allow the lab ship to go for eight weeks between power plant refuelling, as long as the ship was only engaged in light survey work.

Chemical Batteries: The sizes of chemical batteries are based on the power plant required to deliver a performance rating of 1. A chemical battery the same size as a fusion power plant of the same tech level will provide 1000 hours of use assuming the vessel is not manoeuvring, using active sensors, refining fuel, making significant use of long range communicators or energy using weapons (such as lasers, rail guns, meson guns, fusion guns and particle beams). Alternatively, the same sized battery will give 1 hour (10 combat turns) of performance without these restrictions. A battery can be scaled in size to give any endurance and costs 4 times the equivalent fusion power plant. A TL7 battery is the same size as a TL 8 battery. *For example, a TL7 B-rated battery with 2000 hours of endurance will require $(7 \times 2000/1000)$ 14 tons and cost MCr $(16 \times 2000/1000 \times 4)$ 108. The time to recharge a battery is equivalent to the battery endurance used (in low power setting) divided by 1000 then multiplied by 2. If using solar panels to recharge the battery, the "power plant rating" is 0.1. *For example the battery described above has been used for 1600 hours. To recharge it with solar panels will require $(1600 / 1000 / 0.1 \times 2)$ 32 hours.**

DRIVES

Manoeuvre Drive

The gravitic drive is the standard for spacecraft throughout the Imperium, combining efficiency with moderately high thrust. Two other drives are also used as a lower technology option– reaction drives or rockets can provide greater thrust, but require prohibitively large amounts of reaction mass. Solar sails, by contrast, require no power or reaction mass, but are so slow as to be useless to anything other than automated cargo ships and pleasure yachts.

Reaction Drive: The reaction drive takes the same space as a gravitic drive, and costs less, but this is offset by the large fuel requirements in addition to fuel used for the jump drive and power plant. To calculate a ship's fuel requirements, use the following system:

Fuel Required (as a percentage of the ship's displacement) = $2.5\% \times \text{Maximum Thrust} \times \text{hours of Maximum Thrust required}$.

For example, if a thrust of 4G for two hours is required, then $4 \times 2 \times 2.5\% = 20\%$ of the ship's tonnage must be dedicated to fuel.

As space combat turns are 6 minutes long, each hour of fuel gives 10 turns of operation at maximum thrust. The total reserve of fuel is expressed as a number of G/Turns, which are equivalent to the total number of thrust points available. *In the example above, the ship has $(4G \times 2 \text{ hours}) = 8 \text{ G/Hours of thrust for combat}$. When expressed in G/Turns the G/Hours are multiplied by 10 to give 80 G/Turns of operation. Each thrust point spent reduces the number of G/Turns remaining in the tank, and a ship cannot manoeuvre once this fuel is spent.*

Burning Your Bridges (or using Jump Fuel in an Emergency)

Starships have jump drives, which require significant amounts of fuel to sustain a jump. If you have enough jump fuel left it is possible to start to draw on the jump reserve for the Reaction Drive. Each parsec of Jump capability requires 10% of the tonnage of the hull in fuel. Each 10% of fuel will provide an extra 40 Thrust Points of Operations.

However, each time the fuel is reduced below a 10% increment, the jump range is decreased by 1 parsec. So, if an Cruiser with jump 2 worth of fuel left in the tanks was forced to eat into its jump reserve, the first fuel used would reduce the range to 1 parsec, and jump would no longer be capable once fuel fell below 10%. This is a risky manoeuvre for an attacker, as this reduces their chance to escape from a system that they have jumped into and attacked.

It is not usual to use the fuel dedicated to the power plant in such a situation as all other systems – including life support – will fail if this is burned.

Solar Sail: A deployed solar sail covers an area dozens of kilometres across. It is made of a flexible synthetic fabric that has limited self-repair capabilities. Particles emitted by the sun – the ‘solar wind’ catch the sail and provide a minuscule amount of thrust. A ship using a solar sail as its primary method of propulsion has a Thrust of 0 and requires several days or weeks to change its course or speed. A solar sail costs MCr 0.01 per ton of ship, and takes up 5% of the ship’s total tonnage when stowed. Obviously, this is ineffective in a combat situation. Jump drive can not be used with a sail deployed.

Jump Drive

Fast-Cycle Jump: A normal jump drive requires the engine to be prepped before jump, and the ship cannot jump again until the engine has been prepared and the ship’s batteries have recharged. This procedure takes at least one hour, and usually as many as sixteen if all checks are preformed. A fast-cycle drive recharges much faster and does not normally require preparation. After a jump, roll 2d6. On a 3+, the drive does not need a preparation roll and can jump again immediately. However, the time between jumps raises the chance of a misjump.

Time Between Jumps	Misjump DM
One minute or less	–6
One minute to 30 minutes	–2
30 minutes to one hour	–1

A fast-cycle jump drive costs 10% more than a conventional jump drive.

Stealth Jump: A stealth jump drive minimises the burst of radiation caused by the transition from jump space into real space. Normally, a ship that emerges into real space will be automatically detected if it emerges within the “minimal” detail range of the sensor. However, detecting a ship equipped with a stealth drive emerging into real space requires a Sensor, Intelligence or Education, Difficult (–2) skill check if within “limited” detail range of the sensor or a Very Difficult (–4) skill check if within “Minimal” detail range of the sensor. A stealth drive takes up no extra tonnage but costs ten times the amount of a standard jump drive.

EXTENDED DRIVE RATINGS FOR DRIVES ABOVE Z

Rating	J-Drive		M-Drive		P-Plant	
	Tons	MCr	Tons	MCr	Tons	MCr
AA	135	260	51	104	79	206
BB	145	280	55	112	85	222
CC	155	300	59	120	91	238
DD	165	320	63	128	97	254

EXTENDED PERFORMANCE BY HULL VOLUME TABLE

	1400	1600	1800	2000
AA	6	5	5	5
BB	6	6	5	5
CC	6	6	6	5
DD	6	6	6	6

FUEL

Drop Tank: Military assault ships sometimes use external fuel tanks that are explosively jettisoned as the ship enters jump space. The virtue of a drop tank is that it allows a ship to carry a large amount of extra fuel, but the tank carries a risk. Jumping is a delicate procedure, which is greatly complicated by having big empty fuel tanks flying around in close proximity to the jump bubble.

Jump tanks come in two parts. Firstly, there are the docking ports, fuel injectors and explosive collars that allow the spacecraft to mount drop tanks and to jettison them quickly. Secondly, there are the physical tanks themselves.

A drop tank mount costs MCr1 per 50 tons of fuel in the drop tank, and takes up two tons of space per 50 tons of fuel for the fittings to transfer fuel.

A drop tank itself costs MCr 0.1 per 50 tons of fuel space.

For example, a mercenary cruiser wants to mount a 250 ton drop tank. This would cost MCr5 and take up ten tons of internal space. The tank itself would cost MCr 0.5.

Jumping using a drop tank applies a –(15–TL) DM to the roll for misjumping (see page 141 in the core rulebook).

When a drop tank is used, roll 2d6. On an 8+, the tank survives the ejection process and can be retrieved and reused. Otherwise, it is destroyed by the expanding jump bubble or warped by the jettison explosion. At TL14 the use of drop tanks has been improved to such a degree that drop tanks designed at this tech level or above will automatically survive use.

A ship's M-Drive rating must be recalculated when carrying a drop tank. For example, a 200-ton ship with a 150-ton drop tank counts as being a 400-ton ship for the purposes of determining its effective M-Drive rating. Round the tank's tonnage up to the nearest hull size. Drop tanks can also be used to store fuel for other purposes, such as reaction drive propellant.

The jump performance for the ship is calculated assuming that the drop tanks are not attached unless the jump is to be carried out without jettisoning the drop tanks. In this case, the jump performance should be calculated in a similar manner to the effective M-Drive rating.

The power plant rating must be calculated assuming the drop tanks are not in place.

Drop tanks are relatively fragile and if they are attached when the ship is attacked, they are very vulnerable to fire. A drop tank has one hull point and one structure point per 100 tons. Determine the proportion of the drop tank is of the combined ship and drop tank. When the ship is fired on, there is a probability equal to this that the drop tank will be hit, until the drop tank is destroyed. For every point of damage it will suffer hit it will take hull and structure damage as normal and automatically suffer a "fuel" hit as well to the fuel in the drop tank. *For example, a 400 ton ship has a 100 ton drop tank. Until the drop tank is destroyed, any fire against the ship has a 20% probability of hitting the tank instead of the ship.*

Metal Hydride storage: Instead of storing the ship's hydrogen in liquid form at extremely low temperature with a high risk of explosion if a leak occurs into the inhabited spaces of the ship, it is possible to store hydrogen in a more bulky form in a room temperature non-flammable metal hydride matrix. Any portion of the ship's fuel tankage may be designated as metal hydride storage. This storage holds 50% less hydrogen fuel than a more normal tank. It is available at TL9 and costs MCro.2 per ton. If the storage is hit the following revised damage rules are used:

First Hit: minor damage 1d6% of fuel lost
Second Hit: loss of 1d6x3% fuel
Third and Subsequent Hits: as per normal fuel hit.

BRIDGE

The bridge is the nerve centre of the ship, and vital to onboard operations. Old Vilani bridge designs put the captain and other

command staff on a raised balcony or walkway over the workstations; the Solomani layout generally puts the captain in the centre. Scout ship bridges are notoriously cramped and smelly – even more so in Belter mining ships where the bridge and living space is sometimes combined to maximise cargo capacity – while some groups of free traders pride themselves on the elegance and style of their command stations.

Command Bridge: A command bridge is intended for use by warships that will be co-ordinating the efforts of a squadron of other spacecraft. It incorporates a large-scale holographic display of fleet actions, enhanced communications and control electronics, and space for more command staff. A spacecraft command bridge takes up 80 tons, but gives a +1 DM to Tactics (naval tactics) checks. A command bridge costs 50% more than a conventional bridge of the same size. Capital ship command bridges take up 80 tons per section of ship and located in a single location (which may be separate from the main bridge).

Compact Bridge: A compact bridge crams as much equipment and control stations into as small a place as possible. Compact bridges take up 25% less tonnage than a normal bridge of the same type. However, all skill checks performed on the bridge suffer a -1 DM due to the un-ergonomic design.

Detachable Bridge: This bridge design can be ejected from the ship in an emergency to become a lifeboat for the command crew. The bridge has two weeks of life support and battery power, while emergency thrusters give it basic manoeuvring capabilities. A detachable bridge is even capable of soft-landing on a planetary surface. Detachable bridges may not be fitted to ships of more than 6,000 tons. See the table below for details of the various types of this bridge.

	Type 1	Type 2	Type 3	Type 4
Ship size	200 tons or less	201–1,000 tons	1,001–2,000 tons	More than 2,000 tons
Tonnage	15	30	50	80
Cost per ton of ship	MCr 0.8	MCr 0.8	MCr 0.8	MCr 0.8
Hull	0	0	1	1
Structure	1	1	1	1
Thrust	0.1g	0.1g	0.1g	0.1g

Hardened Bridge: A hardened bridge is shielded against radiation attacks. The ship's computer systems are immune to EMP and the number of rads absorbed by the bridge crew is reduced by 1,000. Hardening a bridge adds 25% to the cost of the bridge. If a ship has radiation shielding installed, it is assumed to be hardened.

Holographic Controls: This bridge design incorporates advanced interactive holographic displays, reconfiguring itself to adapt to the current situation. A bridge with holographic controls is always optimised, and gives a +2 bonus when rolling for Initiative. A holographic bridge adds 25% to the cost of the bridge.

SENSORS

Upgraded sensor suites are common on larger vessels.

Survey Sensors: Survey sensors integrate a suite of probe drones and deployable satellites into the sensor system, and are optimised for scanning large areas at great speed. Survey sensors are equivalent to Advanced Sensors, but reduce the time taken to scan a planetary surface by one step.

Countermeasures Suite: A countermeasures suite is specifically designed for jamming enemy transmissions. It is functionally equivalent to an advanced sensor suite, but has a higher DM for counter-measures. Meson transmissions cannot be jammed. The DM for these sensors is +4.

Military Countermeasures Suite: The military counter-measures suite is the cutting edge of counter-measure technology in the Imperium, incorporating both powerful transmitters and advanced electronic-warfare programs to shut down enemy communications. The DM for these sensors is +6.

Sensor Upgrades

Any sensor suite may be upgraded with a range of options to improve likelihood and quality of information and the range at which objects may be detected.

Improved Signal Processing: (TL 11, 1 ton, MCr 4) Signal processing consists of extremely specialised computers and software to improve the quality and likelihood of detection. Improved signal processing provides a +2 DM to sensor tasks and improves of range band of “full” and “limited” by 1 for radar, lidar, densitometer, thermal and visual sensors. However, this comes at a cost of increased vulnerability to jamming, with all jamming DMs doubled.

Enhanced Signal Processing: (TL 13, 2 tons, MCr 8) As for Improved Signal processing except that it has a +4 DM, the range band increase is two and the susceptibility to jamming has been overcome.

Distributed Arrays: (TL 11, triples weight and cost of sensor suite and associated signal processing). By using multiple hull mounted arrays in an integrated computer controlled arrangement, it is possible to increase the effective sensor antenna size and increase the longest range of the sensor (all increased range performance is at “minimal” level of detail). Visual and Thermal sensors can now detect at Very Distant Range (from 150,000 to 300,000km), EM and active radar/lidar to Distant range (50,000–150,000km) and passive radar/lidar to Long range. This modification can not be added to standard sensors and can only be added to ships of 5,000 tons

displacement or more. Due to their surface area requirements only one sensor suite per craft can be fitted with distributed or extended arrays.

Extended Arrays: As per the distributed array, but as the arrays are extended well beyond the hull of the ship on retractable arms, there is no limit on the size of the ship. However, with the arms extended the ship can be detected at a +2 DM by all sensors bar NAS and it may not use its manoeuvre or jump drive.

EXTERNAL COMPONENTS

External components are mounted on the exterior of the hull of a spacecraft.

Aerofins: Extendible aerofins improve a spacecraft's manoeuvrability in atmosphere only, giving a +2 DM to all Piloting checks made in an atmosphere. Aerofins take up 5% of the ship's tonnage, and cost MCr.1 per ton. The DMs for atmospheric operations (see page 137 core rulebook) still apply.

Breaching Tube: All airlocks include flexible plastic docking tubes that allow passengers to cross from one ship to another by floating through the air-filled tube. A breaching tube is a military version of the common docking tube. Instead of a thin myomer, the breaching tube is made of a combination of ballistic cloth and reflex. The breaching tube does not end in a docking collar, but in a magnetic clamp with a ring of plasma torches that can burn through the hull of an enemy vessel when attached.

A breaching tube takes up three tons of space and costs MCr 3.

To use the breaching tube the craft must be adjacent to the target vessel and then succeed in a docking action (see Core Rule book page 147). As the vessel does not have to line up with an airlock, this manoeuvre is easier than using a normal docking tube and receives a +1 DM if the boarding vessel does not want to enter via the airlock.

If access is acquired via an airlock the plasma torches quickly burn through the airlock and boarding can begin immediately. If trying to get through the hull, the plasma torches will take 1 full turn to cut through, increasing by 1 turn for each 2 points of armour (round down).

Each breaching tube provides 5 armour against personal and vehicle weapons and 10 armour against lasers. A hit from a starship weapon will destroy the breaching tube if a successful Point Defence roll is made (see core rulebook p149).

Docking Clamp: A docking clamp allows a spacecraft to carry a small craft or other vessel on the outside of the hull. Recalculate the ship's Thrust Number by adding the tonnage of the spacecraft and the docked craft together, round up to the nearest hull size, then compare that to the thrust by drive volume table. If performance is

reduced to the point that it has no rating, then treat the ship as if it has the equivalent of a solar sail. Jump performance is reduced in a similar manner, but reductions below 1 mean the drive cannot function.

For example, a 200-ton vessel has a docking clamp. Attached to the clamp is a 50-ton cutter. Together, the vessels have a displacement tonnage of 250, which is rounded up to 300. The 200-ship has M-Drive B, which gives the combined spacecraft a Thrust of 1. When the cutter disconnects from the clamp, the 200-tonner will be back at its normal thrust of 2.

The size of the vessel that can be clamped depends on the size of the docking clamp.

Clamp Tonnage	Attached Ship Maximum	Cost
1	10–30	MCr 0.5
5	40–90	MCr 1.0
10	100–300	MCr 2.0
20	400–2,000	MCr 4.0
50	2,000+	MCr 8.0

Grappling Arm: A grappling arm is a remote-control device for picking up or manipulating objects in space. The arm is a flexible tentacle of thousands of telescoping segments, capable of reaching out up to 250 metres. The arm ends in a set of cameras and grippers of varying sizes, from large claws to tiny micro-manipulators. It also carries a toolkit which can be customised for a particular task.

A grappling arm takes up two tons of space and costs MCr 1.



INTERNAL COMPONENTS

These options include new rooms and facilities for the crew, as well as safety and security features.

Armoury: Ships carrying a large number of marines or soldiers can benefit from an armoury, a specialised weapons store. An armoury can only be accessed by those with the correct codes (usually the ship's senior officers and security team) and contains a wide variety of weapons. In game terms, an armoury has enough snub pistols for the crew, enough accelerator or gauss rifles for any marines, and a selection of other military equipment like grenades, combat drug packs, combat armour and communications equipment. A general armoury for a spacecraft costs MCr 0.5 and takes up two 2 tons of space.

Where military vessels are concerned, the number of armouries built into the ship's design is based on crew size. One armoury is installed for either every 50 crew members, or every 10 marines, in order to provide adequate storage for equipment, weapons and ammunition.

Briefing Room: A specialised briefing room is useful on mercenary cruisers and other adventuring ships, where teams can discuss plans or meet with clients privately. A briefing room gives a +1 DM to Tactics (military tactics) checks made when planning missions on board ship. Ships with command bridges and fighter squadrons require additional briefing rooms and facilities. Capital ships must therefore have one briefing room per ship section, and one briefing room for every 20 fighter or bomber crew.

Hangar: Normally, when a small craft is included in the design of a larger one, it is installed into a form-fitting enclosure in the hull of the mother vessel. The scout's air/raft, for example, is carried in a small compartment in the forward section, with barely enough room for passengers to scramble on board. Most repairs and maintenance require the air/raft to be launched first.

Adding a full-scale hangar allows for repairs and maintenance of the small craft when they are back on the ship. The hangar includes spare parts and specialised testing and repair equipment for the stored craft.

A hangar requires 30% of the space allocated to the small craft, and costs MCr 0.2/ton.

For example, carrying a modular cutter normally takes up 50 tons of space. If it is given a full hangar, then it requires 65 tons of space instead.

Launch tubes: Launching and recovering small craft from a larger vessel is usually an activity taking 30 minutes to launch or recovery one craft. Launch tubes allow small craft to be launched and recovered rapidly from a ship. The size of a launch tube is twenty-five times the tonnage of the largest craft that will be deployed in

this manner, and they cost MCr 0.5/ton. With a launch tube, up to ten small craft can be launched per round. Multiple launch tubes can be installed.

Laboratory: Space allocated to laboratories can be used for research and experimentation. Each four tons of lab space allows for one scientist to perform research on board ship. The cost for research equipment varies depending on the type of research undertaken, but is generally around MCr 1.0 per 4 tons.

Library: A library room contains computer files as well as lecterns, display screens, holotanks and even hard copies of books. A good library is useful for both research and passing time in jump space. Having a library on board a ship gives one extra week of training time for new skills per week spent in jump space.

Vault: A vault is a special armoured chamber in the heart of a spacecraft, designed to survive attacks that would annihilate the rest of the ship. A vault has another four Hull and Structure points that only come into play when the ship housing the vault is destroyed. A vault can contain cargo, staterooms or any other internal components equivalent up to 6 tons.

Component	Type	TL	Tonnage	Cost (MCr)
Fuel				
Drop Tank Mount	External	9	2/50 tons of fuel	1/50 tons of fuel
Drop Tank	Fuel Tank	9	–	0.1/50 tons of fuel
Metal Hydride Storage	Internal	9	Varies	0.2/ton
Bridge				
Command	Internal	12	80	50% more than standard bridge
Compact	Internal	8	Varies	10% more than standard bridge
Detachable	Internal	10	15 30 50 80	0.8/ton of ship
Hardened	Internal	12	Varies	25% more than standard bridge

Component	Type	TL	Tonnage	Cost (MCr)
Holographic	Internal		Varies	25% more than standard bridge
Sensors				
Survey	Internal	12	10	10
Counter–Measure	Internal	13	7	6
Military	Internal	15	20	25
External				
Aerofins	External	8	10% of ship	0.01/ton
Breaching Tube	External	10	3 tons	3
Docking Clamp	External	8	Varies	Varies
Grappling Arm	External	8	2	1
Solar Panels	External	8	10% of power plant	0.1/ton
Internal				
Armoury	Internal	10	2	0.5
Briefing room	Internal	8	4	0.5
Hangar	Internal	8	Varies	0.2/ton
Laboratory	Internal	12	4	1
Library	Internal	8	4	4
Vault	Internal	14	12	6

WEAPONS

Changes to Core Rule Book

The following amendments are made to the core rule book:

- Pulse lasers inflict 2d6 damage and have a –2DM to hit and beam lasers inflict 1d6 damage. Beam lasers become available at TL9.
- Missiles are capable of thrust 10, with the turns to impact on page 147 halved (rounded up). However, missiles have limited endurance of 60 minutes (10 turns) before they run out of fuel.
- Sandcaster munitions can be constructed with at TL5 allowing low tech worlds to supply some of a navy's munitions.
- Meson screens reduce radiation damage from meson guns and meson flicker weapons. Radiation hits from these weapons suffer a –DM equal to twice the active number of screens
- No launcher includes ammunition in its purchase cost. Missiles, torpedoes and so forth must be purchased separately.

Advanced Rules for Weapon Bays on Non-Capital Ships

- Standard spacecraft and small craft can always carry one bay but the maximum number is limited by displacement/1000, multiplied by the power plant rating number (rounded down, but with a minimum of one). For example, a 2,000 ton ship with a type N power plant (rating of 2) would be able to support a maximum of 4 bays.
- Meson bays can only be fitted in ships with power plant rating of 5+. Fusion and particle bays can only be fitted in ships with a power plant rating of 3+. There are no limits on the fitting of non-energy weapons, lasers and railguns. If the power plant rating is 3 or 4 a maximum of 50% of turret weapons can be particle beams. If the power plant rating is 1 or 2, a maximum of 25% of turret weapons can be particle beams.

New Weapon Mounts

Barbettes: Barbettes are a weapon mount half-way between turrets and bays. A barbette takes up a turret hardpoint, and uses the Gunner (turrets) skill, but also takes up space inside the ship, as the larger weapons mounted in a barbette need room for capacitors, targeting mechanisms, ammo feeds and other components.

Large Bay: Large bays are hundred-ton bay weapons, used only on larger warships. They cost twice as much as a 50 ton bay. The characteristics of large bays for the bays in the core rule book are as follows:

Weapon	TL	Range	Damage	Cost (MCr)
Missile	6	Special	Flight of 24 missiles	24
Particle Beam	8	Long	9d6 + crew hit	40
Fusion Gun	12	Medium	8d6 + crew hit	16
Meson Gun	11	Long	8d6 + crew hit	100

Missiles

Long Range Missile: Long range missiles have a smaller warhead to allow them to carry larger engines and travel faster. A long-range missile travels as follows:

Range	Turns to Impact
Adjacent	–
Close	–
Short	1
Medium	1
Long	1
Very Long	2
Distant	3

A long range missile only deals 1d6–1 damage instead of 1d6. It travels at thrust 15 and has an endurance of 7 turns.

Multi-warhead Missile: Multi-warhead missiles carry a payload of several warheads. The downside is that the larger payload slows the missile, so it takes longer to reach its target.

Range	Turns to Impact
Adjacent	–
Close	–
Short	1
Medium	1
Long	2
Very Long	3
Distant	6

A multi-warhead missile that hits its target deals 1d6 damage 1d6 times. It travels at thrust 8 and has an endurance of 10 turns.

Torpedo Weapons

Torpedo Barbette: Torpedoes are heavy anti-ship missiles (and

Missile Types:

Shockwave Missile: These missiles carry a special magnetic-pulse warhead. The blast is harmless to spacecraft, but it scatters and polarises sand clouds, making them useless. A ship struck by a shockwave missile cannot use sand for the rest of this turn.

Ortillery Missile: Ortillery missiles are specially designed for planetary bombardment. They are too slow to be used as anti-ship weapons except at Close or Adjacent range.

Missile Type	TL	Cost per 12 missiles (Cr.)
Shockwave	7	35,000
Ortillery	7	25,000

some navies often refer to them as heavy missiles). Each torpedo carries tremendous destructive force. They can be defended against using standard anti-missile countermeasures. A torpedo barbette fires one torpedo per round, using the normal rules. A torpedo barbette can fit no other weapon. A torpedo barbette costs MCr 4, taking up five tons of space and does not include any ammunition

Torpedo Bay: The 50 ton version fires three torpedoes at a time. Otherwise this weapon performs as a normal torpedo launcher. The 100 ton torpedo bay fires six torpedoes at a time.

Railguns

Railguns are huge gauss weapons, using a coil of electromagnets to accelerate ferrous projectiles to great speed. Railguns are of limited use in starship combat, but do have some tactical advantages, as it is very difficult to counter a slug of metal flying towards you at great speed. Railguns can only be used at Short range or less.

Torpedo Types:

Each torpedo takes up two and half tons of space. They are normally purchased in two-shot loads of five tons each. A barbette holds two torpedoes.

Basic: The basic torpedo consists of a small but powerful engine, guidance computers, and a fragmentation device for kinetic-kill attacks. It deals 4d6 damage on a successful hit.

Nuclear: Nuclear torpedoes deal 6d6 damage, as well as an automatic radiation crew hit.

Bomb-Pumped Laser: A bomb-pumped laser torpedo is a one-shot laser weapon. The torpedo contains a small nuclear device that is detonated prior to impact to charge a laser. The explosion destroys the torpedo, but also generates a powerful x-ray laser burst. The bomb-pumped laser is a normal laser attack, but deals 6d6 damage. The basic roll to hit is as a missile, but is defended against as a laser. Point defence can be used, but suffers a -2DM due to the fact the bomb-pumped laser can be used in a stand-off role.

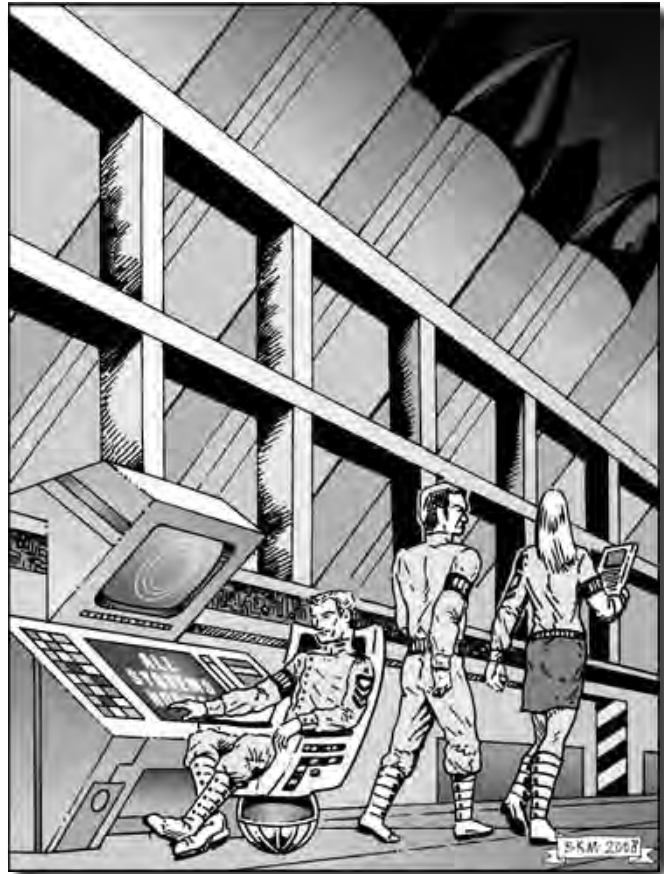
Ortillery: Heavy ortillery torpedoes are used for bombing fortified positions. They deal 8d6 damage, but are much too slow to be effective in space combat. They move at the same speed as a multi-warhead missile. Attacks made with an Ortillery Torpedo have a -2DM to hit, and Point Defence attacks against the torpedo have a +2DM.

Torpedo Type	TL	Damage	Cost per torpedo (Cr.)
Basic	7	4d6	5,000
Nuclear	7	6d6	15,000
Bomb-Pumped	9	6d6	18,000
Ortillery	8	8d6	12,000

Railgun Barbette: A barbette railgun takes up five tons of space, includes space for 20 shots of ammunition and deals 3d6 damage on a successful attack. Each ton of railgun ammo contains twenty shots and costs Cr 1,000.

Railgun Bay: A 50 ton railgun bay consists of multiple linked railguns. It always fires in full auto mode, has Autofire 8 and includes space for 200 shots of ammunition. The railgun bay deals 3d6 damage on each successful hit. The 100 ton version of the railgun bay is as the 50 ton bay version except it has Autofire 12 and includes space for 400 shots of ammunition.

Ortillery Railgun: This variation on the standard 50 ton railgun bay is also known as a mass driver. It fires larger projectiles at slower speeds that are optimised for smashing planetary targets. The bay includes space for 10 shots of ammunition. A single hit from an



ortillery railgun is like a tactical nuclear strike, but attacks against mobile ground targets with an ortillery railgun suffer a -4 DM. Each ton of ortillery railgun contains two shots.

Particle Weapons

Particle Beam Barbette: A particle beam barbette works just like a smaller particle beam turret, but inflicts 4d6 damage instead. It takes up five tons of space.

Meson Weapons

Meson Flicker: A meson flicker 50 and 100 ton bay weapons work like a meson gun, but fires multiple pulses instead of a single meson blast. The meson flicker's weaker pulses do no structural damage but inflict considerable radiation hits to the crew.

Point Defence

Sandcaster launchers are remarkably flexible weapons, capable of carrying different payloads. All sandcaster ammo is stored in standard drums.

Chaff: Sandcaster chaff disrupts sensors and communications within the chaff cloud. All Comms, Sensors, Remote Operations or missile attack rolls within a chaff cloud suffer a -1 DM. Chaff clouds can be fired at any target within Close range. They do not provide protection against laser fire.

Pebbles: Pebble canisters are designed as basic offensive rounds for a sandcaster. Pebble round canisters allow the sandcaster to deal 1d3 damage instead of one damage when used as an attack. They do not provide protection against laser fire.

Sandcutter: Sandcutter rounds fire a hail of electromagnets into the midst of an enemy sand cloud. These magnets cause the sand to coagulate, reducing the effective protection. A successful use of a sandcutter shot halves the protection offered by a sand cloud. Sandcutters are usually fired in concert with a beam attack. They do not provide protection against laser fire.

Sandcasters are as effective as lasers as long as the missile it is defending against is fired from at least medium range.

Screens

The number of active screens a spacecraft can support is limited to the power plant divided by 2, rounded up. Small craft can not carry screens. Screens onboard a ship are divided into groups during the design process. The largest group is the primary and another other groups are back ups. The number of screen in each group is limited as above. Screens in each group combine their effect to give multiple dice rolls.

For example a spacecraft with a power plant performance rating of 4 has 3 nuclear dampers and 2 black globe generators. Due to the size of the power plant the maximum number of screens in each group is 2. The designer chooses to split the nuclear dampers into groups of 2 (which is the primary screen) and 1 (redundant). The primary nuclear damper reduces fusion gun and nuclear missile damage by 4d6 and removes the automatic crew hit from these weapons. The black globes are in a single group of 2, enabling a flicker rate of 20% to be maintained.

Black Globe Generator

Black Globe generators project an energy-absorbing barrier which shunts any energy that impinges upon it into the ship's on-

board capacitors. Any ship using a Black Globe generator cannot manoeuvre, dodge, jump or use weapons or sensors whilst the globe is active. All energy levelled at a Black Globe using vessel is absorbed, irrespective of its type.

Black Globe generators are only available at TL15 and are currently not *commercially* available. These are either recovered artefacts of the Ancients or exotic (and not necessarily reliable) prototypes and are generally installed either as makeshift defences or as experimental screens on Imperial capital warships. These items are therefore the jealously guarded property of governments and empires and cannot be bought on the open market. The Referee always has final discretion on Black Globe availability. Black Globe generators require 50 tons and when available cost MCr 100.

As a ship using a Black Globe is unable to move or even see out, the device has considerable limitations. These are offset by the capability to flicker the Globe (switching the field off and on hundreds of times per second) thereby giving the ship intermittent protection whilst allowing manoeuvring, sensor use, and so forth to take place in the periods when the globe is switched off. The maximum flicker rating is determined by its screen rating in accordance with the following table.

Active Black Globe generators	Maximum Flicker Rate
1	10%
2	30%
3	40%
4	60%
5	70%
6	90%

Each 10% of flicker acts as 2 points of armour against all weapons (including meson weapons). It is important to note that this affects both inbound and outbound fire.

Weapon	Damage	Range	Mount	TL	Tonnage	Cost (MCr)
Heavy Missile Barbette	By missile	Special	Barbette	9	5	3
Heavy Missile Bay	By missile	Special	Bay	9	50	12
Heavy Missile Bay	By missile	Special	Bay	9	100	24
Railgun Barbette	3d6	Short	Barbette	9	5	4
Railgun Bay	3d6 x 4	Short	Bay	9	50	30
Large Railgun Bay	3d6 x 6	Short	Bay	9	100	60
Ortillery Railgun	8d6	Short	Bay	9	50	30
Large Ortillery Railgun	12d6	Short	Bay	9	100	60
Particle Barbette	4d6	Long	Barbette	8	5	8
Meson Flicker	1d6+2 crew hits	Long	Bay	13	50	80
Large Meson Flicker	2d6 +1 crew hits	Long	Bay	13	100	160

CAPITAL SHIP BARRAGE ATTACK CHARACTERISTICS

Weapon	Range	Damage per weapon	Attack Roll DMs
Pulse Laser	Short	2	-2
Beam Laser	Medium	1	
Turret Particle Beam	Long	3 + 1 radiation hit	
Sandcaster	Close	1 per 4 sandcasters fired	
Pebbles	Close	1 per 2 pebbles fired	
Normal or Smart Missile	Special	1 per missile	
Nuclear Missile	Special	2 + 1 radiation hit per missile	
Long Range Missile	Special	1 per missile	-1
Multi-Warhead Missile	Special	1d6 per missile	
Shockwave Missile	Special	Negate use of sandcasters if at least 5% damage inflicted	
Ortillery Missile	Adjacent	As normal missiles	
50 ton Missile Bay		12 missiles	
100 ton Missile Bay		24 missiles	
50 ton Particle Beam	Long	6 + 1 radiation hit	
100 ton Particle Beam	Long	9 + 1 radiation hit	
50 ton Fusion Gun	Medium	5 + 1 radiation hit	
100 ton Fusion Gun	Medium	8 + 1 radiation hit	
50 ton Meson Gun	Long	5 + 1 radiation hit	
100 ton Meson Gun	Long	8 + 1 radiation hit	
Torpedo	Special	4 per torpedo	
Nuclear Torpedo	Special	6 + 1 radiation hit per torpedo	
Bomb Pumped Laser Torpedo	Special	6 per torpedo	
Ortillery Torpedo	Special	8 per torpedo	-2, additional +1 for point defences
50 ton Torpedo Bay		3 torpedoes	
100 ton Torpedo Bay		6 torpedoes	
Railgun	Short	3	
50 ton Railgun Bay	Short	12	
100 ton Railgun Bay	Short	18	
Particle Beam Barbette	Long	4 + 1 radiation hit	
50 ton Meson Flicker	Long	1d6 + 2 radiation hits	
100 ton Meson Flicker	Long	2d6+1 radiation hits	

A ship's ability to use its manoeuvre drive is also affected by the use of the black globe. Reduce the maximum thrust available by the flicker rating (round to nearest whole number, with 0.5 rounded down). For example a ship has a maximum thrust of 4. It is operating a black globe at a flicker rate of 20%. Maximum thrust is reduced by $4 \times 0.2 = 0.8$, rounded to 1. Maximum thrust is now 3.

As the energy striking the Black Globe is channelled to the ship's capacitors, the ship must have sufficient capacitor capacity to

absorb the incoming energy if it is to avoid overloading its systems and exploding catastrophically. Vessels equipped with jump, teleport and hyperspace drives have a considerable built in capacitor capability. Additional capacitors can be fitted, particularly for those ships without these drive systems. A suitable drive system will have 20% of its size consisting of capacitors. Additional capacitors can be added at a cost of MCr3 per ton.

Each ton of capacitor will absorb 36 points of energy.

When the Globe is in flicker mode, a proportion of the energy equal to the flicker rate is absorbed and channelled to the capacitors. If the Globe is fully switched on, all the energy is absorbed and channelled to the capacitors. In capital ship barrage combat the amount of energy transferred to the Globe is based on the damage inflicted before the effect of the equivalent armour is taken into account. The amount of energy a particular weapon transfers depends on its type and is detailed in the table below. For example, a 30,000 ton Jump-4 ship with has 4,000 tons of capacitors (3,000 tons integral to the jump drive and 1,000 tons of additional capacitors) providing 144,000 points of energy storage has a Black Globe operating at 20% flicker. It is fired on by 200 nuclear missiles. The adjusted dice roll (with the black globe taken into account) is 2 resulting in no hits. The adjusted dice roll (without the black globe taken into account) is 6 (125%). Hence the energy value of the missiles hitting the black globe is $(200 \times 1.25 \times 50)$ 125,000, leaving only space for 19,000 more points of energy until overload occurs.

Weapon Type	Energy Value
Laser	1 per weapon
Particle Beam Turret	2 per weapon
Particle Beam Barbette	4 per weapon
50 ton Particle Beam	15 per bay
100 ton Particle Beam	30 per bay
50 ton Meson Gun or Flicker Gun	50 per bay
100 ton Meson Gun or Flicker Gun	100 per bay
Missile or Torpedo	2 each
Nuclear Missile or Torpedo	50 each
Railgun	4 per weapon
50 ton Railgun	15 per bay
100 ton Railgun	30 per bay
Spinal Mount	10 x mount damage

If a Black Globe absorbs energy and the ship's capacitors are full, then the ship explodes. It is therefore paramount that energy be discharged regularly to avoid catastrophe. This can be done by channelling the energy into the ship's own, internal energy requirements. However, the Black Globe must be switched off, and during a combat round the ship can only discharge energy equal to $(0.01 \times \text{ship tonnage} \times \text{power plant rating})$ points of energy, minus 10% for every 10% of flicker rate of the Black Globe screen. For example, the above 30,000 ton ship has a power plant rating of 5. With its Black Globe operating at 20%. It can discharge $(0.01 \times 30,000 \times 5 \times 0.8 =)$ 1,200 energy points a turn.

Any ship that has its Black Globe permanently switched on and with zero flicker is effectively rendered invisible. This offers significant opportunities if done outside the range of sensors. However this advantage is very limited under battle conditions: any ship that turns on its Black Globe and suddenly vanishes from sensor view can immediately have its vector plotted accurately. And, because the ship cannot move, the vector prediction will always be correct. All weapons will automatically hit the target and if using the barrage fire rules, a +6 DM (simple) is used by the firing ship.

PRIMITIVE & ADVANCED SPACECRAFT

The Traveller core rulebook gives rules for building spacecraft as they are built in most shipyards across the Imperium – a mix of common off-the-shelf components, lowest-contractor-offer hulls, and electronics imported from high-tech or industrial worlds across the subsector. The overall tech level of the resulting spacecraft is roughly TL12, regardless of where it was built. Many techniques and components are standardised across the Imperium. That said, characters may wish to purchase cutting-edge ships using the latest in advanced materials and technologies. Isolated or interdicted worlds may construct their own vessels without importing components from outside. Explorers may run into Ancient derelicts or warships built by primitive species.

Most technologies are developed one or more technology levels before they become common, and are refined for one or more technology levels after before they are abandoned in favour of the next step in design. For example, the standard Pulse laser is developed at TL7. Primitive prototypes become available at TL6, while the design is refined until TL8 or even later, at which time weapons research moves to particle weapons.

There is a 5% price discount per TL for older technology devices if bought new at the source, to a maximum of -30%. Characters can buy second-hand outdated technology for a fraction of the price (10% to 75%, depending on condition and usability). For example, a character buying a new TL8 engine at a TL10 world gets a 10% discount. A character buying TL8 engines from a scrapyard could pick them up for 50% of their original cost.

Hulls

Low Technology Hulls are not as space-worthy as standard hulls, and use lower-grade material. They have lower Hull and Structure values.

High Technology Hulls are constructed using new materials according to the most advanced naval architecture designs, making them stronger.

TL	7	8	9	10	11	12	13	14	15	16
Cost	100%	100%	100%	100%	100%	100%	110%	125%	150%	200%
Hull per	100	90	80	70	60	50	45	40	35	25

The Hull Per row determines how many Hull and Structure points a spacecraft will have at that technology level. Normally, a ship has one Hull point and one Structure point per 50 tons. At higher technology levels, a ship can have more Hull and Structure for its tonnage.

Drives

The standard TL for drives is given in the Drive TL table.

	1	2	3	4	5	6
Manoeuvre	7	7	8	8	8	9
Jump	9	11	12	13	14	15

	TL -1	TL +0	TL +1	TL +2	TL +3
Tonnage	200%	100%	95%	90%	75%
Cost	150%	100%	110%	125%	200%

For example, a Jump-2 drive becomes commonly available at TL11. Prototype versions are available at TL10, but cost 50% more and are twice as big. A character who wants to buy a Jump-2 drive using the most advanced technology available would pay twice as much as normal, but the drive would be 25% smaller.

Power Plants

Fusion power has been in use in the Imperium for centuries, and has been refined constantly over this time. Fusion power becomes available at TL8 and remains in use until TL15. Most power plants in use in starships are TL12-14, but it is possible to use more primitive or advanced power plants.

	TL 8-10	TL 11-14	TL 15+
Tonnage	125%	100%	75%
Cost	100%	100%	200%

Armaments & Screens

Weapons and screens also become available as prototypes one Tech Level before they are commonly available. They remain available for three Tech Levels before being outmoded or further improvement becomes too difficult to be cost-effective.

	TL -1	TL +0	TL +1	TL +2	TL +3
Tonnage	200%	100%	90%	75%	60%
Cost	150%	100%	110%	125%	200%

For reference, weapons and screens become available at the following technology levels:

Pulse Laser	7	Missile	6
Beam Laser	9	Nuclear Missile	6
Particle Beam	8	Smart Missile	8
Fusion Gun	12	Torpedo	9
Meson Gun	11	Railgun	9
Nuclear Damper	12	Meson Flicker	13
Meson Screen	12		

Instead of decreasing the tonnage of the weapon or screen, it is possible to select upgrades for a higher-technology weapon or screen. One upgrade may be added per extra Tech Level. For example, a TL10 Particle Bay could contain two upgrades, or have its tonnage decreased to 90%, or contain one upgrade and have its tonnage decreased to 95%.

Some upgrades are double upgrades, consuming two 'slots'. An upgrade may only be taken once.

Accurate (Double Upgrade): Accurate weapons have a +1 DM to all attack rolls (not applicable to screens). In capital ship combat, if all the weapons firing in the barrage are accurate, a +1 DM is used on the attack roll.

Easy to Repair: Easy to Repair armaments give a +1 DM to all repair attempts in spacecraft and capital ship combat.

High Yield: When rolling damage for a High Yield weapon or performance of a high yield screen, any '1's rolled on the dice are counted as '2's. For example, a roll of 1, 1, 2 on a High Yield Particle Beam attack would deal 6 damage, as the two '1's become two '2's. In capital ship combat, if all the weapons firing in the barrage have high yield, a +1 DM is used on the attack roll. High yield screens have no effect in capital ship combat.

Long Range: The optimum range for the weapon is increased by one band. For example, a Pulse Laser has an Optimum range of Short. A Long Range Pulse Laser has an Optimum range of Medium instead (not applicable to screens).

Resilient (Double Upgrade): The first hit on a Resilient weapon is ignored. This only applies in capital ship combat if all the weapons of that type in that section are resilient.

Variable Range (Double Upgrade): A Variable Range weapon increases its Optimum Range by one band in either direction. For example, a Pulse Laser has an Optimum range of Short. A Variable Range Pulse Laser has an Optimum Range of Close-Medium (not applicable to screens).

Very High Yield (Double Upgrade): When rolling damage for a Very High Yield weapon, any '1's or '2's rolled on the dice are counted as '3's. For example, a roll of 1, 1, 2 on a Very High Yield Particle Beam attack would deal 9 damage, as all the dice are below the threshold and become '3's. In capital ship combat, if all the weapons firing in the barrage have high yield, a +2 DM is used on the attack roll. Very high yield screens have no effect in capital ship combat.

ROBOTS AND DRONES

Fighter Drone

The fighter drone is a small (10 ton) fighter armed with limited weapons. It can be operated remotely or autonomously as if it has characteristic scores of 7 and skill levels of 2.

			Tons	MCr
Hull S1, streamlined	10 tons	Hull o Structure 1		1.1
Armour	Crystaliron	4 points	0.5	0.2
Manoeuvre Drive	sD	Thrust 8	2	3.5
Power Plant	sG	Rating 12	3	6.0
Fuel		One week	0.75	
Drone Command Unit	TL 13		1.5	10.0
Computer	Model/2	Rating 10		0.16
Software	Manoeuvre/o Intellect			1.0
Electronics	Basic Civilian	DM-2	1	0.05
Armament	Single Turret	Beam Laser	1	1.2
Cargo			0.25	
Total Tonnage and Cost	(standard design, 10% discount)		10	20.9

Salvage Drone

Salvage drones are more elaborate versions of standard repair robots. Salvage drones are equipped with thrusters, allowing them to hop from their mothership to nearby debris fields or wrecked spacecraft. The drones can then rapidly strip any salvageable components from the wreckage and tag it for retrieval.

A salvage drone may make a Mechanic check each round of space combat in order to retrieve salvageable parts of one system that has not been destroyed on the wrecked ship. The Mechanic check suffers a -2 DM per hit on the system. If the system can be salvaged, it is generally worth 10–60% of its original cost.

			Tons	Price (Cr.)
Hull S1	10 tons	Hull o Structure 1		1,000,000
Armour				
Manoeuvre Drive	sA	Thrust 2	0.5	1,000,000
Power Plant	sA	Rating 2	1.2	3,000,000
Fuel		One week	0.5	
Drone Command Unit	TL 12		1.5	5,000,000
Computer	Model/2	Rating 10		160,000
Software	Manoeuvre/o Intellect			1,000,000
Electronics	Basic Civilian	DM-2	1	50,000
Armament	None			
Extras	Grappling Arm		2	1,000,000
Cargo			3.3	
Total Tonnage and Cost	(standard design, 10% discount)			11,000,000

Turret Drone

"Turret" drones are low tech short range low manoeuvrability fighter drones equipped with missiles or rail guns. The turrets can be launched from the ship to give extra fire support, or to attack targets inaccessible to the ship. A turret drone cannot carry energy weapons. (The turret moves with thrust 1. Turret drones run out of fuel after ten turns of independent movement.)

			Tons	Price (Cr.)
Hull S1	10 tons	Hull o Structure 1		1,000,000
Armour	Crystaliron	4 points	0.5	200,000
Manoeuvre Drive	sA	Thrust 2	0.5	1,000,000
Power Plant	sA	Rating 2	1.2	3,000,000
Fuel		One day	0.1	
Drone Command Unit	TL 13		1.5	2,000,000
Computer	Model/2	Rating 10		160,000
Software	Manoeuvre/o			
Electronics	Standard	DM-4	0	
Weapons	Barbette	Rail Gun	5	4,000,000
	Ammunition	24 rounds	1.2	
Cargo			0	
Total Tonnage and Cost	(standard design, 10% discount)		10	10,200,000

The missile version has a single missile launcher, civilian sensors, has 3 times the endurance and carries 48 missiles. It costs Cr 7,500,000 without ammunition.

CONSTRUCTION TIME

Whilst standard civilian ships are built at a rate of 1 week per MCr 5.0 cost (see Core Rulebook page 105), the construction times for bespoke and particularly military designs is as follows and is based on their displacement:

The first number is for the first ship of that class built in that yard and the second number is for subsequent ships.

Size (tons)	Duration (weeks)
50 or less	24/15
60 to 80	32/19
90 to 100	40/24
200 to 300	48/29
400 to 500	64/38
600 to 700	96/58
800 to 900	112/67
1,000 to 4,000	120/72
5,000 to 7,500	144/86
10,000 to 15,000	160/96
20,000 to 40,000	174/104
50,000 to 75,000	192/115
100,000	208/125
200,000 to 400,000	224/134
500,000 to 900,000	232/139
1,000,000	240/144

SMALL CRAFT DESIGN

Definitions

A small craft is any ship from 10 to 99 tons. Small craft cannot use jump engines. Ships are measured in 'displacement tons' or d-tons: a hundred-ton ship displaces a volume equal to one hundred tons of liquid hydrogen (one d-ton equals roughly 14 cubic metres).

A fighter is a small, short-ranged fast combat vessel, normally displacing less than fifty tons.

A bomber is a heavier combat vessel, equipped with weapons that are capable of damaging a capital ship.

A torpedo boat is a special variety of bomber equipped with torpedoes.

A boat is a small long-range craft, designed for independent operations.

A shuttle is a large cargo carrier, usually used to transfer cargo from orbit to surface.

DESIGN CHECKLIST

1. Choose a Hull
 - a. Choose Hull configuration
 - b. Optionally, install armour.
2. Decide what the maximum acceleration for the ship should be, and cross-reference it with the ship's tonnage on the Performance by Hull Volume to determine the Manoeuvre Drive required.
3. Choose a Power Plant, ensuring that it can provide enough power for the Jump and Manoeuvre Drives.
4. Work out fuel requirements and allocate space to fuel.
5. Install a bridge.
6. Install a computer
 - a. Install computer software
7. Install sensors
8. Optionally, install other components like vehicles, fuel processors.

THE HULL

Hulls are identified by their displacement, expressed in tons.

Hull	Hull Code	Price (MegaCredits)
10 tons	S1	1
20 tons	S2	1.2
30 tons	S3	1.3
40 tons	S4	1.4
50 tons	S5	1.5
60 tons	S6	1.6
70 tons	S7	1.7
80 tons	S8	1.8
90 tons	S9	1.9
100 tons	S10	2

Configuration

A small craft may have any of three configurations – standard (a wedge, cone, sphere or cylinder), streamlined (a wing, disc or other lifting body allowing it to enter the atmosphere easily), or distributed (made up of several sections, and incapable of entering an atmosphere or maintaining its shape under gravity).

Streamlining a small craft increases the cost of the hull by 10%.

A distributed small craft reduces the cost of its hull by 10%.

A standard-hull small craft may still enter atmosphere, but is very ungainly and ponderous, capable of only non-lift generating powered flight.

Armour

The basic hull provides some protection from anti-ship weapons fire, but it is possible to add heavier armour to the hull for added defence. There are practicable limitations on the amount of armour that can be added to a spacecraft due to the technology level of the metallurgy. This is defined by the following table:

Armour Type	TL	Protection	Cost	Max Armour
Titanium Steel	7	2 per 5% ¹	5% of base hull	TL or 9, whichever is less
Crystaliron	10	4 per 5% ¹	20% of base hull	TL or 13, whichever is less
Bonded Superdense	14	6 per 5% ¹	50% of base hull	TL

¹ or one ton, whichever is greater.

Armour does not need to be added in 5% elements, but it must be added in whole armour point values. For example, the minimum element which can be added for Titanium Steel is 2.5%, which is a single point of armour.¹

Options

Small craft may have any of the Hull options from the list of those allowed to spacecraft.

HULL & STRUCTURE

Tons	Personal Scale		Ship Scale	
	Hull	Structure	Hull	Structure
10	2	4	0	1
20	4	6	0	1
30	6	8	0	1
40	8	10	1	1
50	10	10	1	1
60	12	12	1	1
70	14	14	1	1
80	16	16	1	1
90	18	18	1	1
100	20	20	2	2

Manoeuvre Drives

A small craft cannot be equipped with a Jump Drive. It can be equipped with a Gravitic or Reaction M-Drive or a solar sail

- A Gravitic drive is a smaller version of the drive plates used by larger spacecraft, and propels the craft using artificial gravity.
- A Reaction drive is a rocket. Reaction drives are cheaper and smaller than Gravitic Drives, but burn fuel much more quickly and are less efficient.
- A Solar Sail is large, up to several kilometres across, made of a flex flexible synthetic fabric that has limited self-repair capabilities. Particles emitted by the sun – the ‘solar wind’ catch the sail and provide a minuscule amount of thrust. A ship using a solar sail as its primary method of propulsion has a Thrust of 0 and requires several days or weeks to change its course or speed. A solar sail costs 0.01 MCr per ton of ship, and takes up 5% of the ship’s total tonnage when stowed.

Power

Like a larger spacecraft, a small craft must have a power source. There are four standard options.

- Fusion power plants are the most common power source used throughout the Imperium.
- Chemical plants use petrochemical or synthetic fuels. Chemical plant fuel can not be skimmed from gas giants or taken from water sources and can not be used by rocket motors..
- Chemical batteries storing electrical energy. Eventually they need to be recharged
- Solar Panels. Extendable panels provides power, as a backup to a chemical or fusion plant, as a recharging source for chemical batteries or, if the power required is very low, as an independent power source.

Chemical Batteries: The sizes of chemical batteries are based on the power plant required to deliver a performance rating of 1. A chemical battery the same size as a fusion power plant of the same tech level will provide 1000 hours of use assuming the vessel is not manoeuvring, using active sensors, refining fuel, making significant use of long range communicators or energy using weapons (such as lasers, rail guns, meson guns, fusion guns and particle beams). Alternatively, the same sized battery will give 1 hour of performance without these restrictions. A battery can be scaled in size to give any endurance and costs 4 times the equivalent fusion power plant. A TL7 battery is the same size as a TL 8 battery. For example, a sB battery with 2000 hours of endurance will require $(1 \times 2000/1000)$ 2 tons and cost MCr $(2 \times 2000/1000 \times 4)$ 16. The time to recharge a battery is equivalent to the battery endurance used (in low power setting) divided by 1000 divided by the power plant rating multiplied by 2. If using solar panels to recharge the battery, the “power plant rating” is 0.1. For example the battery described above has been used for 1600 hours. To recharge it with solar panels will require $(1600/1000/0.1 \times 2)$ 32 hours.

Solar Panel: The size of solar panels required to power a ship is $1/10^{\text{th}}$ that of the main power plant. If the panels are fitted to a ship without a chemical or fusion power plant, then assume the (non-existent) main power plant is sized to deliver a performance rating of 1. A craft equipped with solar panels consumes power plant fuel at one-quarter the normal rate as long as it is only engaged in minimal manoeuvring and does not fire weapons. Minimal manoeuvring does not include long periods at full thrust. Solar panels cost 0.1MCr/ton. No power plant fuel is consumed, and endurance is considered as infinite, if the ship is not manoeuvring, using active sensors or refining fuel for use.

SMALL DRIVE COSTS AND TONNAGE

	Gravitic M-Drive		Reaction M-Drive		Fusion P-Plant		Chemical P-Plant	
Drive Code	Tonnage	MCr	Tonnage	MCr	Tonnage	MCr	Tonnage	MCr
sA	0.5	1	0.25	0.5	1.2	3	2	1
sB	1	2	0.5	1	1.5	3.5	2.5	1.25
sC	1.5	3	0.75	1.5	1.8	4	3	1.5
sD	2	3.5	1	2	2.1	4.5	3.5	1.75
sE	2.5	4	1.25	2.5	2.4	5	4	2
sF	3	6	1.5	3	2.7	5.5	4.5	2.25
sG	3.5	8	1.75	3.5	3	6	5	2.5
sH	4	9	2	4	3.3	6.5	5.5	2.75
sJ	4.5	10	2.25	4.5	3.6	7	6	3
sK	5	11	2.5	5	3.9	7.5	6.5	3.25
sL	6	12	2.75	5.5	4.5	8	7	3.5
sM	7	14	3	6	5.1	9	7.5	3.75
sN	8	16	3.25	6.5	5.7	10	8	4
sP	9	18	3.5	7	6.3	12	8.5	4.25
sQ	10	20	3.75	7.5	6.9	14	9	4.5
sR	11	22	4	8	7.5	16	10	5
sS	12	24	4.5	9	8.1	18	11	5.5
sT	13	26	5	10	8.7	20	12	6
sU	14	28	5.5	11	9.3	22	13	6.5
sV	15	30	6	12	9.9	24	14	7
sW	16	32	6.5	13	10.5	26	15	7.5
sX	17	34	7	14	11.1	28	16	8
sY	18	36	7.5	15	11.7	30	17	8.5
sZ	19	38	8	16	12.3	32	18	9

Hulls vary in their requirements for drives and power plants based on tonnage. The drive potential table lists 24 small craft drive types, identified by the letters sA through sZ (omitting I and O to avoid confusion). Also listed are various tonnage levels for hulls; any tonnage which exceeds a listed level should be read at the next higher level. Correlating hull size with drive letter indicates drive potential. If a — is listed, then that combination of drive and hull will result in a vessel with insufficient power or overpowered.

- For manoeuvre drives, this potential is the Thrust number (Tn), which is the number of Gs acceleration available.
- For power plants, it is power plant rating (Pn).

The power plant rating must be at least equal to the manoeuvre drive rating for gravitic M-Drives. For reaction M-Drives, the power plant rating must be at least 1.

PERFORMANCE BY HULL VOLUME

	10	20	30	40	50	60	70	80	90	100
sA	2	1	—	—	—	—	—	—	—	—
sB	4	2	1	1	—	—	—	—	—	—
sC	6	3	2	1	1	1	—	—	—	—
sD	8	4	2	2	1	1	1	1	—	—
sE	10	5	3	2	2	1	1	1	1	1
sF	12	6	4	3	2	2	1	1	1	1
sG	—	7	4	3	2	2	2	2	1	1
sH	—	8	5	4	3	2	2	2	2	2
sJ	—	9	6	4	3	3	2	2	2	2
sK	—	10	6	5	4	3	3	3	2	2
sL	—	11	7	5	4	3	3	3	3	3
sM	—	12	8	6	4	4	3	3	3	3
sN	—	13	8	6	5	4	4	4	3	3
sP	—	14	9	7	5	4	4	4	4	4
sQ	—	—	10	7	6	5	4	4	4	4
sR	—	—	10	8	6	5	5	5	4	4
sS	—	—	11	8	6	5	5	5	5	5
sT	—	—	12	9	7	6	5	5	5	5
sU	—	—	12	9	7	6	6	5	5	5
sV	—	—	13	10	8	6	6	6	5	5
sW	—	—	14	10	8	7	6	6	6	5
sX	—	—	14	11	8	7	6	6	6	6
sY	—	—	15	11	9	7	6	6	6	6
sZ	—	—	16	12	9	8	6	6	6	6

Small Craft & Fuel Requirements

Small craft often do not need to function for two weeks of independent operations. A surface to orbit shuttle or a fighter might only need to carry enough fuel for a few hours of flight.

Operation Time	% of Base Fuel Requirements
Three hours (surface to orbit)	1%
Six hours (dogfighter)	2%
12 hours (surface to orbit round trip + manoeuvring)	5%
One day (Standard vehicle operations)	10%
Three days	25%
One week	50%

For example, a modular cutter with a type sK power plant requires two tons of fuel for two weeks of operation. If it only requires one week of operation, then it requires only one ton of fuel.

A high-power fighter with an sF power plant requires 1.5 tons of fuel for two weeks of operation. However, the fighter needs only to operate for six hours before refuelling, so it only needs 2% of this fuel, or 0.03 tons of fuel.

Fuel

Total fuel tankage for a ship must be indicated in the design plans. There is no cost, but the capacity does influence how often the ship must refuel. All fuel requirements assume two weeks of operation.

Gravitic drives do not require fuel.

Reaction drives require fuel. The required fuel is a percentage of craft displacement equal to 2.5% per thrust hour. So to thrust a craft at 4G for 2 hours requires 8G-hours of fuel, which corresponds to 20% of the craft dedicated to fuel. In ship combat, there are 10 turns in an hour so multiply the number of G-hours by 10 to give the duration number of G-turns a ship can thrust for. Each point of thrust spent reduced the fuel reserve by an equivalent number of G/turns.

Fusion power plant fuel is tied directly to the power plant letter (and assumes a 2 week operation period):

sA	sB	sC	sD	sE	sF	sG	sH	sJ	sK	sL	sM	sN	sP	sQ	sR	sS	sT	sU	sV	sW	sX	sY	sZ
1	1	1	1	1.5	1.5	1.5	1.5	2	2	2	2	2.5	2.5	2.5	2.5	3	3	3	3	3.5	3.5	3.5	3.5

Chemical power plant fuel is also tied directly to the power plant letter (and assumes a 2 week operation period):

sA	sB	sC	sD	sE	sF	sG	sH	sJ	sK	sL	sM	sN	sP	sQ	sR	sS	sT	sU	sV	sW	sX	sY	sZ
5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	100	105	110	115	120

When not using active sensors, weapons or more than occasional use of very long communication, craft with chemical power plants halve their fuel consumption. For example, normally a 90 ton shuttle with a chemical power plant (rating sE), would require 25 tons of fuel for 2 weeks endurance. However, as it does not need active sensors except when docking, will rarely use weapons or very long range communicators, 12.5 tons will be sufficient for 2 weeks endurance.

If you are reducing power plant fuel to a number of hours, endurance will be important, so multiply the number of hours of fuel by 10 to give the number of turns of operation at full power.

THE MAIN COMPARTMENT

Cockpit or Control Cabin

All craft must have either a cockpit or a control cabin containing basic controls, communications equipment, avionics, scanners, detectors, sensors, and other equipment for proper operation of the ship. A cockpit is much more cramped and uncomfortable, but takes up less tonnage. No extra passengers can be carried in a cockpit; a control cabin allows for half as many passengers as crew to be carried. The cost for a cabin or cockpit is the same – MCr 0.1 per 20 tons of ship.

A cockpit takes up 1.5 tons per crewman; a cabin takes up three tons per crewman. The cockpit or control cabin includes a basic electronics suite. More advanced electronics suites can be installed (as per the rules for starship electronic suites).

Small Craft Crews

The minimum number of crew for a small craft depends on its size.

Tonnage	Minimum Crew
10–50	1
60–100	2

A craft may carry extra crewmen, often as gunners, sensor operators, cargo masters or navigators.

Drones

It is possible to equip small craft as drones. At lower technology levels this is little more than making the craft remote control. However, at higher technology levels it is possible to provide the drone with a true autonomous capability. Such autonomous craft are typically not as skilled as their flesh and blood equivalents but they do provide navies with limited numbers of trained personnel, or crew prone to claustrophobia (such as the K'Kree), with the option of deploying combat small craft. Remote operation mode is sensitive to electronic warfare and if within short range of a vessel, that vessel may use electronic warfare (see Core Rulebook page 150) as if the drone was a smart missile to temporarily jam transmission between the mother ship and the drone.

A drone command unit takes up 1.5 tons per required crew equivalent and includes a basic electronics suite.

TL	Functionality	Cost
9	Remote Operation (non-combat only)	MCr 0.5
11	Remote Operation	MCr 2
12	Autonomous Mode (non-combat only) or Remote Operation	MCr 5
13	Autonomous Mode with Characteristic 7, skill level 2 or Remote Operation	MCr 10

A small craft drone operating in autonomous mode is effectively a robot with a range of specialist intellect and expert programmes (see Core Rule Book pages 92–94). The characteristics and skills of an autonomous mode drone depend on its tech level, noting that all skills requiring physical characteristics used Intelligence instead.

TL	Characteristics	Skills
12	Intelligence 7 (+0) Education 9 (+1)	Intellect/2, Expert Pilot/2 and 2 Expert/2 (from astrogation, comms, mechanic, electronics and sensors)
13	Intelligence 8 (+0) Education 10 (+1)	Intellect/3 Expert Pilot/3, 1 Expert/3 and 2 Expert/2 (from astrogation, comms, mechanic, electronics, sensors and gunnery)
14	Intelligence 9 (+1) Education 11 (+1)	Intellect/4 Expert Pilot/3, 2 Expert/3 1 and 1 Expert/2 (from astrogation, comms, mechanic, electronics, sensors and gunnery)
15	Intelligence 10 (+1) Education 12 (+2)	Intellect/4 Expert Pilot/3, 2 Expert/3 and 2 Expert/2 (from astrogation, comms, mechanic, electronics, sensors and gunnery)

Airlock

Unlike starships, a small craft does not have an airlock by default. Airlocks take up one ton each and cost MCr 0.2. If a craft does not have an airlock, then the crew cannot leave the craft except when it is landed or in a pressurised landing bay without opening the ship up to vacuum.

Cabin Space

Adding cabin space gives the crew more space to move around and to access other components of the ship, such as the engines or cargo bay. Every 1.5 tons of cabin space allows the craft to carry another passenger in moderate comfort (although passenger shuttles will customarily take Luxuries to upgrade the passenger section). Designating a section as cabin space costs MCr 0.05 per ton.

Other Components

A small craft may have any of the components allowed to larger vessels.

ARMAMENTS

The number of weapons allowable depends on the size of craft. Weapons are divided into two categories – ship weapons and anti-personnel weapons. Anti-personnel weapons like FGMPs or rocket launchers are too short-ranged and low-powered to be of use against spacecraft.

One ton of fire control equipment must be installed for each turret or fixed mount (see page 111 of the Traveller main rulebook). Anti-personnel weapons do not need to be placed in turrets – instead, they are mounted on the external surface of the craft. One turret is required per three weapons carried.

Small Craft Size	Ship Weapons	Anti-Personnel Weapons
10	1	1
20	1	2
30	1	3
40	2	4
50	2	5
60	2	6
70	3	7
80	3	8
90	4	9
100	5	10

Ship weapon types are limited. Rapid fire mounts may not be fitted. Barbette Particle beams can be fitted but use the equivalent of two ship weapons (and a turret). Torpedo barbettes can not be fitted but individual torpedoes can be carried. Each torpedo displaces 2.5 tons and uses a ship weapon slot.

The number of particle beams is limited as per the expanded space craft rules.

Meson, particle beam and fusion bays can not be fitted.

The armaments allowed to a small craft are further restricted by its power plant type. It may only equip up to the number of ship-scale lasers and, particle weapons – allowed by the following table. The number of missile launchers or projectile weapons is not limited by the power plant letter.

Letter code	Energy Weapons
A–F	0
G–K	1
L–R	2
S–Z	3

Particle beam barbettes are the equivalent of 2 energy weapons each.

For example, a 70-ton ship has a Class H power plant. It may install up to three ship-scale weapons, but a maximum of one of these can be energy weapons.



CAPITAL SHIP DESIGN

DESIGN CHECKLIST

1. Choose a Hull.
 - a. Choose Hull configuration.
 - b. Optionally, install armour.
2. Decide what the cruising acceleration for the ship should be, and determine the tonnage required.
3. Optionally, decide what the maximum Jump range for the ship should be, and determine the tonnage required.
4. Choose a Power Plant, ensuring that it can provide enough power for the Jump and Manoeuvre Drives.
5. Work out fuel requirements and allocate space to fuel.
6. Install a bridge/command modules.
7. Install a computer and any computer software.
8. Install sensors.
9. Optionally, install other components like vehicles, fuel processors.
10. Optionally, install turrets, bays or screens. Install one ton of fire control equipment per turret or bay. Some weapons require ammunition.
11. Fit any other optional systems, for example small craft and fuel purification plants.
12. If not previously calculated, determined ship crew and passengers.
13. Install staterooms, low berths, briefing rooms and armouries.
14. Any remaining space can be allocated to cargo.

THE HULL

Capital ships range between 2,001 and 1,000,000 tons, and are designated by Hull Code. A Hull Code includes all hull values between it and the next lowest hull code (so a 28,000 ton ship will have a Hull Code of CK).

Tonnage	Code	Tonnage	Code
3,000	CA	60,000	CN
4,000	CB	75,000	CP
5,000	CC	100,000	CQ
6,000	CD	200,000	CR
7,500	CE	300,000	CS
10,000	CF	400,000	CT
15,000	CG	500,000	CU
20,000	CH	600,000	CV
25,000	CJ	700,000	CW
30,000	CK	800,000	CX
40,000	CL	900,000	CY
50,000	CM	1,000,000	CZ

The base cost of a hull is MCr. 0.1 per ton, plus a modifier based on the Hull Configuration.

Configuration

A capital ship may have any of several configurations. Unlike a smaller vessel, the configuration of a capital ship's hull is very important, as it determines what proportion of a ship's weapons can be brought to bear on a target in any round and what weapons are permitted.

Configuration	Spinal Weapons	Bearing	Streamlined	Cost
Needle/Wedge	Yes	80%	Yes	+20%
Cone	Yes	70%	Yes	+10%
Standard (Cylinder)	Yes	80%	Partial	–
Close Structure	Yes	70%	Partial	–10%
Sphere	Yes	70%	Partial	–20%
Dispersed Structure	No	60%	No	–50%
Planetoid	Yes	50%	No	Special
Buffered Planetoid	Yes	50%	No	Special



Hull Code	Number of Sections	Section 1	Section 2	Section 3	Section 4	Section 5	Section 6
CA to CE	2	Engineering	Forward				
CF to CK	3	Engineering	Main	Forward			
CL to CQ	4	Engineering	Amidships	Main	Forward		
CR to CV	5	Engineering	Aft	Amidships	Main	Forward	
CW to CZ	6	Engineering	Aft	Upper Amidships	Lower Amidships	Main	Forward

Planetoid and Buffered Planetoid hulls cost Cr 4000 per ton to transport from the local planetoid belt and to drill out. Only 80% of the volume of a planetoid hull is useable and 65% of the volume of a buffered planetoid is useable.

A capital ship is divided into between two and six sections, depending on its tonnage. Attacks on a ship will hit one section or another. One section is always the Engineering section; sample names are given for different sections, but the section should be named when components are allocated to it (see page 68).

Armour

The basic hull provides some protection from anti-ship weapons fire, but it is possible to add heavier armour to the hull for added defence.

Armour Type	TL	Protection	Cost	Max Armour
Titanium Steel	7	2 per 5%	5% of base hull	TL or 9, whichever is less
Crystaliron	10	4 per 5%	20% of base hull	TL or 13, whichever is less
Bonded Superdense	14	6 per 5%	50% of base hull	TL

Armour can be allocated on a per-section basis, in which case the cost is determined as if the two differently armoured sections of the ship were different vessels of the appropriate size. Armour does not need to be added in 5% elements, but it must be added in whole point values.

Dispersed structure ships can not be armoured.

Planetoids and Buffered Planetoids have integral armour of 2 and 4 points respectively. They may be additionally armoured as if they were a close structure vessel, but with the base hull already paid for. The maximum armour of a planetoid is 2 plus the limit from the technology or tech level of the armour. The maximum armour of a buffered planetoid is 4 plus the limit from the technology or tech level of the armour.

Example: A 20,000 ton planetoid is additionally armoured over all sections with a further 8 points of crystaliron armour to a total level of 10. This extra armour uses 2,000 tons of volume (10% of the hull volume) and costs 20,000 x (MCr 0.1 x 90%) x 20% for a total of MCr 360.

Drives

Hulls vary in their requirements for drives and power plants based on tonnage. Any specific drive will be less efficient as the tonnage it must drive increases. To determine the tonnage of the drive required, consult the drive potential table, which gives the percentage of the ship's total tonnage that must be allocated to the drive to give the designed Thrust or Jump.

DRIVE POTENTIAL TABLE

	1	2	3	4	5	6
Manoeuvre	1	1.25	1.5	1.75	2.5	3.25
Jump	2	3	4	5	6	7
Jump TL	9	11	12	13	14	15
Manoeuvre MCr/ton	0.5	0.5	0.5	0.5	0.5	0.5
Jump MCr /ton	2	2	2	2	2	2

For power plants, the required tonnage depends on both the tech level that the ship is built at, and the designed Power Number.

POWER PLANT TABLE

Rating	1	2	3	4	5	6
% of displacement	1.5	2	2.5	3	4	5

Chemical power plants are 40% larger.

Fission power plants are 100% larger.

TL 8 to 10 fusion plants are 25% larger.

TL 15+ fusion plants are 25% smaller but cost twice as much.

Antimatter plants are the same size and are only available from TL 17.

Cost per ton is as follows:

Chemical power plants	MCr 1.25
Fission power plants	MCr 1
TL8–10 Fusion	MCr 2
TL11–14 Fusion	MCr 2.5
TL15 Fusion	MCr 5
Antimatter plants	MCr 2.5

The power plant rating must be at least equal to either the manoeuvre drive or Jump drive rating, whichever is higher, unless a chemical manoeuvre drive is fitted, in which case the rating must be 1 or the jump drive rating if this is higher. The power plant rating also determines what weapons and defensive screens of each type in

each screen group the ship can carry. There is no limitation on the number of redundant screens fitted.

For example a 60,000 ton TL 15 ship with power plant rating of 5 may have up to 300 bay weapons and a spinal mount. Each of its screens groups can have up to 5 meson screens, 5 nuclear dampers or 3 black globe generators.

P-Plant Rating	Turret Weapons	Bay Weapons	Spinal Weapons	Screens
1	Unlimited by power	1 per 1,000 tons	No	1
2	Unlimited by power	2 per 1,000 tons	Yes	2
3	Unlimited by power	3 per 1,000 tons	Yes	3
4	Unlimited by power	4 per 1,000 tons	Yes	4
5	Unlimited by power	5 per 1,000 tons	Yes	5
6	Unlimited by power	6 per 1,000 tons	Yes	6

Fuel

Total fuel tankage for a ship must be indicated in the design plans. There is no cost, but the capacity does influence how often the ship must refuel.

Manoeuvre Drive fuel is only needed if a reaction drive is fitted. The amount of fuel required is determined as the percentage of ship displacement = 2.5 per thrust hour. For example a ship capable of 2 hours of thrust at 4G requires $2 \times 4 \times 2.5\% = 20\%$ of displacement as reaction drive fuel. As space combat turns are 6 minutes long, each hour of fuel gives 10 turns of operation at maximum thrust. The total reserve of fuel available is expressed as a number of thrust points. In the above example, the ship has $(4G \times 2 \text{ hours}) = 8 G/\text{Hours}$ of thrust in the fuel reserve. This is converted to thrust points by multiplying by 10, giving a fuel reserve of 80 Thrust Points, with a maximum spend equal to the drive performance. Each thrust point spent reduces the reserve remaining in the tank, and a ship cannot manoeuvre when this fuel is spent.

Jump Drive fuel depends on the size of the ship and the length of the Jump, and is calculated as $0.1 \times \text{tonnage} \times \text{Jump Number}$, and allows one Jump of the stated level.

Power plant fuel depends on the tonnage of the plant. For fusion plants an amount of fuel equal to two thirds of the tonnage of the power plant will power the starship for two weeks. For example, a 3,000-ton power plant would consume 2,000 tons of fuel in two weeks of operation. For chemical plants, this figure is 15 times larger.

Hyperspace Drive

Hyperdrives can be used in non-standard *Traveller* settings (see *Traveller* main rulebook, page 109).

A hyperspace drive uses no fuel but requires double the space of a jump drive that can travel the equivalent distance.

Hull & Structure

Like other starships, capital ships have one Hull Point and one Structure Point per 50 tons of displacement. However, as capital ships are so vast, these Hull and Structure points are divided into several groups, each group representing one section of the ship. If any section of the ship is reduced to zero Structure, the ship is destroyed.

Tons	Sections	Total		Per Section	
		Hull	Structure	Hull	Structure
3,000	2	60	60	30	30
4,000	2	80	80	40	40
5,000	2	100	100	50	50
6,000	2	120	120	60	60
7,500	2	150	150	75	75
10,000	3	200	200	66	66
15,000	3	300	300	100	100
20,000	3	400	400	133	133
25,000	3	500	500	166	166
30,000	3	600	600	200	200
40,000	4	800	800	200	200
50,000	4	1,000	1,000	250	250
60,000	4	1,200	1,200	300	300
75,000	4	1,500	1,500	375	375
100,000	4	2,000	2,000	500	500
200,000	5	4,000	4,000	800	800
300,000	5	6,000	6,000	1,200	1,200
400,000	5	8,000	8,000	1,600	1,600
500,000	5	10,000	10,000	2,000	2,000
600,000	5	12,000	12,000	2,400	2,400
700,000	6	14,000	14,000	2,333	2,333
800,000	6	16,000	16,000	2,666	2,666
900,000	6	18,000	18,000	3,000	3,000
1,000,000	6	20,000	20,000	3,333	3,333

THE MAIN COMPARTMENT

Component Options

Unless otherwise noted, any options that are allowed for smaller craft can be applied to Capital Ship components. For example, a capital ship computer network can be hardened against EMP (see *Traveller*, page 108) at the cost of 50% of the computer network's base cost.

Command

A ship requires one command module per section. Each command module takes up 0.5% of the ship's total tonnage and costs MCr.1 per ton of command module/bridge. One of these command modules must be designated the ship's bridge, but they can all use any specialist bridge options.

Computer

Capital ships have multiple distributed computer networks, but always include a central computer core that controls the ship's Jump engines. The rating of this central core depends on the Jump range and the size of the ship. Computers are assumed to have their tonnage included in the command modules of a ship.

Ship Size Minimum	Jump Minimum	Computer Model	TL	Rating	Cost
3,000–5,000 tons	2	Core/3	9	40	12 MCr
5,001–10,000 tons	2	Core/4	10	50	20 MCr
10,001–50,000 tons	3	Core/5	11	60	30 MCr
50,001–100,000 tons	4	Core/6	12	70	50 MCr
100,001+ tons	5	Core/7	13	80	70 MCr
100,001+ tons	6	Core/8	14	90	100 MCr
100,001+ tons	6	Core/9	15	100	130 MCr

The rating for the ship's computer system is in addition to the processing power and speed needed for Jump Control programs, and all jump control software is included in the price of the computer system. Other ship software must be added to this.

Sensors

Capital ships use standard sensors. However, due to the size of these vessels, it is possible to mount multiple extended or distributed arrays with up to one per section fitted.

ARMAMENTS

Capital ships can carry the same weapons as smaller craft, but in far greater numbers. Even a small capital ship can have dozens of turrets and bays. Capital ships can also mount weapons that are unique to them, such as spinal weapons.

Because of the sheer number of weapons mounted on a capital ship, it is sheer folly to track each individual turret weapon or missile launcher. Instead, the attack potential of each type of weapon is measured in barrages (see page 73).

Turrets and Barbettes

A capital ship can mount one turret per 100 tons not allocated to other weapons. The standard set of turrets (single, double, triple, pop-up and so on) is available to capital ships. One ton of fire control equipment is required for each turret.

Bays

The number of bays that a capital ship can mount is limited by the ship's power plant (see above), and by the number of hardpoints. The total number of turrets and bays cannot exceed the ship's tonnage divided by one hundred. One ton of fire control equipment is required for each bay.

Point Defence

While a capital ship can mount point defence systems like sandcasters, the effectiveness of these systems is measured by the total point defence, not by individual systems. See page 74.

Screens

Unlike point defence weapons, which are the same for capital ships as they are for smaller craft, defensive screens scale with the size of the ship. A capital ship will need a larger screen generator to protect itself. Only one screen generator needs to be installed per ship, but extra generators can be installed as backups or to provide a stronger screen. There is a limit on the number of screens that may be combined together depending on the Tech Level of the screens. The limits are:

TL	Nuclear Damper	Meson Screen	Black Globe
12	1	1	—
13	2	2	—
14	4	4	—
15	6	6	3

Hull Code	Nuclear Damper		Meson Screen		Force Field (Black Globe)	
	Ton	MCr	Ton	MCr	Ton	MCr
CA to CE	20	30	50	70	10	100
CF to CK	30	40	60	80	15	150
CL to CQ	40	50	70	90	20	200
CR to CV	50	60	80	100	25	250
CW to CZ	60	70	90	110	30	300

SPINAL WEAPONS

Particle					Meson				
Type	Base TL	Tons	Damage	Cost	Type	Base TL	Tons	Damage	Cost
A	8	5000	200	3500	A	11	5000	200	5000
B	12	3000	300	2100	B	11	8000	250	8000
C	10	5000	300	3500	C	12	10000	350	10000
D	14	3500	400	2500	D	13	14000	450	14000
E	12	4000	400	2800					

SPINAL WEAPONS

Spinal weapons are huge particle or meson weapons that run the length of a capital ship. A single shot from a spinal weapon can cut a lesser vessel in two.

The damage of a spinal weapon depends on the size and type of weapon. Spinal weapon damage is measured in capital ship damage terms. For damage to spacecraft, the damage is the barrage value in d6. Spinal mounts use a number of hardpoints equivalent to their tonnage divided by 100. All weapons have long range. A ship may only have one spinal mount.

Increasing Tech Level will reduce size and cost significantly with some improvement in performance.

Particle	TL+1	TL+2	TL+3	TL+4
Size and Cost	-10%	-20%	-30%	-40%
Damage	+5%	+10%	+15%	+20%

Meson	TL+1	TL+2	TL+3	TL+4
Size and Cost	-20%	-40%	-60%	-80%
Damage	+10%	+20%	+30%	+40%

Meson Gun Spinal Mount Penetration is graded on the amount of damage they inflict in accordance with the following table:

Damage	Penetration
200-259	I
260-309	II
310-359	III
360-459	IV
460+	V

Options

Rapid Fire: A rapid fire spinal weapon is equipped with capacitors and redundant reaction chambers. It can be fired twice in a round instead of once, but only if it does not fire at all in the following round while the capacitors recharge. Making a rapid fire spinal weapon increases the tonnage and the cost of the weapon by 10%.

COMPONENTS

Barracks

Ships that must carry large number of troops may take barracks instead of staterooms. A barracks may only be used to carry marines or passengers (few will willingly pay for passage in such cramped conditions, so such passengers will be colonists or prisoners). A barracks takes up 2 tons per marine, and costs MCr 0.1 per marine. Barracks can only be used to accommodate troops intended for boarding or assault operations. Troops accommodated in barracks can not be used to reduce the number of service crew embarked (see page 67).

Hangar

Hangars are used for storing and maintaining small craft. There are three types:

Storage Hangars have just enough space to hold the craft. To launch or recover the craft takes ten six-minute rounds, as the craft must be unpacked and prepared for flight. A storage hangar takes up tonnage equal to tonnage of the stored craft plus 10% and costs MCr 0.2 per ton.

Standard Hangars are large enough to hold the craft in readiness for a quick launch, perform reloading and all necessary maintenance. It includes all the necessary spare parts, tools and heavy machinery to conduct full maintenance and repairs. A standard hangar takes up tonnage equal to the tonnage of the small craft to be stored, plus 30% and costs MCro.2 per ton.

Launch Tubes

Launch tubes allow for small craft to be launched and recovered rapidly from the capital ship. The size of a launch tube is twenty-five times the tonnage of the largest craft that will be deployed in this manner, and they cost MCr. 0.5/ton. With a launch tube, up to ten small craft can be launched per starship combat round. Multiple launch tubes can be installed.

CREW

All starships require a crew to operate and maintain the ship. In general, the crew of the ship must provide enough personnel to operate all machinery and man all weaponry. The actual number of

crew personnel required for the ship must be computed based on the drives, weaponry, and other equipment carried by the ship. It is strongly recommended that you calculate the required crew for the vessel as each element of the ship is designed.

Command Section

The ship should have a commanding officer, an executive officer, a computer officer, two navigation officers, a medical officer, and a communications officer. The section should also have support personnel, ratings equal to 50% of the total officers in the section. On large ships (over 20,000 tons), the number of personnel in the command section should amount to 5 per 10,000 tons of ship.

Engineering Section

The ship needs one engineering crew member for each 100 tons of drives installed. This should include a knowledgeable chief engineer, a second engineer, and several petty officers.

Gunnery Section

The ship should have a chief gunnery officer and at least 1 petty officer for each type of weapon aboard. The major weapon (spinal mount) should have a crew of 1 per 100 tons of weapon; bay weapons should have a crew of at least 2; turret weapons should have a crew of at least 1 per barrage. (Note this places a maximum limit on the number of barrages a ship can shoot, which could limit its performance against small craft. Each operational fighter or turret drone requires at least 1 crew member.

Each screen device (force field, damper, meson screen) should have a crew of at least 4. The gunnery section should have 10% officers, and 30% petty officers. Personnel are drawn from the gunnery branch and the technical services branch.

Flight Section

If the ship has any launched craft, it should have a flight control officer, crew for each craft, and at least 1 maintenance person per craft. Launch tubes should have a crew of at least 10, which will include a flight supervision officer and a preponderance of petty officers. Pilots must be officers, and maintenance personnel are generally ratings.

In addition, if the ship has more than 3 vehicles (air/rafts, ATVs, and so on), the flight section should include vehicle drivers and maintenance personnel for them as well (at least 1 per 3 vehicles).

Ship's Troops

Most ships over 1,000 tons have a marine (or military) contingent aboard which ranges in size from a squad to a regiment. Such contingents range from 3 per 100 tons to 3 per 1,000 tons. Ship's troops often fill the role of security forces aboard the ship, and are used for military adventures by the commander where necessary.

Ship's troops are also used for damage control parties, manning of some weapons, and boarding actions.

Service Crew

The ship itself may have a requirement for other sections which provide basic services, including shops and storage, security (especially if there are no ship's troops aboard), maintenance, food service, and other operations. Such personnel are drawn from the crew branch if no other appears appropriate. Allow 3 per 1000 tons if there are no ship's troops. This can be reduced to as low as 2 crew per 1000 tons of ship by replacing service crew with ship's troops.

The Frozen Watch

A ship may have low berths installed (and competent medical personnel assigned). If low berths provide enough places for a 50% coverage in personnel (including ship's troops, if any), then the ship has a frozen watch. Replacement personnel are kept available in low berths for continuous replacement of casualties and battle losses; between battles, the frozen watch can be revived and used to restore lost crew.

Section	Base Crew	Requires
Command	10 or 5/10,000 tons of ship	Stateroom
Engineering	1/100 tons of drive	½ Stateroom
Gunnery	1/100 tons of spinal weapon 2/bay weapon 1/turret 4/screen	½ Stateroom
Flight	Crew of craft, +1 mechanic per craft	½ Stateroom
Ship's Troops	Varies	½ Stateroom
Service	2/3 per 1000 tons	½ Stateroom
Frozen Watch	Varies	Low Berth

Quarters: Staterooms or quarters must be provided for the entire crew. The captain of the ship must be provided with an individual stateroom, as must the commanding officers of each section and the commander of the ship's troops. All other personnel on military vessels must be provided with the equivalent of half a stateroom each.

Passengers should be provided with single staterooms. Low passengers should be provided with individual low berths.

Staterooms require 4 tons at a cost of MCr 0.5 per stateroom. Staterooms actually average about 2 tons, but the additional tonnage is used to provide corridors and access ways, as well as galley and recreation areas. Low berths require 0.5 ton per berth, at a cost of MCr 0.05 each.

SECTION HIT TABLES

Once all components have been selected for the ship, the ship's details must be record and its Section Hit Tables must be laid out.

Roll 2d6	Engineering		Forward		Other	
	External	Internal	External	Internal	External	Internal
2	Hull	Crew	Hull	Crew	Hull	Crew
3	C	J-Drive	C	C	C	C
4	M-Drive	P-Plant	B	B	B	B
5	A	A	A	A	A	A
6	Hull	Structure	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure	Hull	Structure
9	A	A	A	A	A	A
10	M-Drive	J-Drive	B	B	B	B
11	C	P-Plant	C	C	C	C
12	Hull	Critical	Hull	Critical	Hull	Critical

All slots must be filled on all tables. The entries marked Type A, Type B or Type C can contain any of several components – see the Component Type table.

If there are excess Type A components, then the excess can be placed in unoccupied Type B slots.

If there aren't enough Type B slots, use unoccupied Type C slots.

Sometimes, not all of a ship's components can be placed on the Section Hit Tables; if so, place the largest tonnage components first.

If there are still unfilled slots when all components have been placed, then unfilled internal slots are filled with Structure and unfilled external slots are filled with Hull.

Type A		Type B		Type C	
External	Internal	External	Internal	External	Internal
Turret ¹	Bay ¹	Sensors	Spinal Weapon ⁴	External Special Component ⁵	Screen
Barbette ¹	Fuel	Craft ²	Hangar ²		Internal Special Component ⁵
	Hold	Launch Tubes	Power Plant ³		Command
		M-Drive ³	J-Drive ³		
		Spinal Weapon ⁴	Computer		

¹ If the ship mounts multiple types of this weapon (such as laser turrets and particle turrets), they should be counted separately.

² If the ship mounts multiple types of this component (such as fighters and shuttles), they should be counted separately.

³ The engineering section normally contains all the ship's drives, but if any drive exceeds 10% of the ship's tonnage, it should be placed in one extra section per extra 10%.

⁴ If a ship has a spinal weapon, then it must be placed in the Internal Section Hit tables for every section apart from Engineering.

⁵ If a component such as laboratories or docking clamps exceeds 1% of the ship's tonnage, it should be placed on the Section Hit table.

All weapons, sensors, small craft, launch tubes, hangars, computers, screens, command sections and any other component that has a role in ship to ship combat must be put in at least one slot.

CAPITAL SHIP CREWS

A capital ship can have several hundred or thousand crewmen, far too many to keep track of individually. Instead, a capital ship crew is measured by two characteristics:

Crew Strength: The size of the crew relative to the ship is measured on the Crew Strength scale. An understrength crew may still be able to operate the ship, but with penalties to skill rolls or more slowly. An overstrength crew gives no bonuses, but is able to absorb more casualties and has a bonus during boarding actions.

Crew Strength	% of full crew	Skill DM	
Dead	0%	–	Cannot act
Survivors	1% to 10%	–4	May only fire once every five rounds
Skeleton	11% to 25%	–2	May only fire once every three rounds
Half	26% to 50%	–1	May only fire once every two rounds
Weakened	51% to 75%	+0	
Full	76% to 90%	+0	
Battle	91% to 120%	+0	
Overstrength	121% to 150%	+0	
Massively Overstrength	151%+	+0	

If a ship is noted as being able to fire once every two or more rounds, then this applies to each individual weapon. For example, a ship armed with a pulse laser bank, a particle beam bank, and a spinal meson gun could fire a half-strength barrage from its pulse lasers together with a meson gun blast. Next round, it could fire another half strength pulse laser barrage and the particle beams, but could not fire the other half of the pulse lasers or the meson gun again.

Crew Skill: A starship crew is assumed to have average to good Characteristics and to have mastered the following skills: Pilot, Gunner, Discipline, Mechanic, Engineer, Sensors and Medic. All these skills are at the level of their Crew Skill characteristic. Obviously, some individual crewmen will have greater or lesser skills, but the average is the Crew Skill and is used for all skill checks made by the crew.

Crew Skill	Skill Check DM
Green	+0
Average	+1
Experienced	+2
Elite	+3
Legendary	+4

A crew may have an especially skilled officer. If the officer has a skill level of 4 or more, he gives a +1 DM to all matching skill checks. An officer may only give a bonus to one skill roll each round, and a skill may only benefit from one officer bonus.

For example, the gunnery officer on the Invidious is an especially skilled gunner (Gunner (turrets) 5 levels) and a strict disciplinarian (Discipline 4). He may give a +1 DM to one Gunner or Discipline check made on board each round. The captain also has Discipline 4, and so may give a +1DM to one Discipline check per round. However, the two may not combine their bonuses to give a +2DM to a Discipline check.

ENDURANCE

Ships are able to operate for one month without needing to go into a spaceport for maintenance, assuming an adequate supply of fuel. This is increased by one month for every 1% of total tonnage dedicated to cargo. If fleet support vessels are in attendance then another three months can be added to the time needed before maintenance is required.

CAPITAL SHIP DESIGN EXAMPLE

Julia wants to design a Heavy Cruiser for the Imperial Navy. She decides that it should be resilient to damage, be heavily armed and capable of high performance and capable of a range of military operations. As it is for the Imperial Navy, she can use tech level 15 systems if she chooses to do so.

Step 1 – Choosing a Hull

For her heavy cruiser, Julia chooses a CP Hull (75,000 tons) and a cone configuration, giving a hull cost of MCr 8,250. A 75,000 ton ship has 4 sections on the section hit table. Reviewing the options available from the capital ship design section, the expanded spacecraft design section and the core rulebook, Julia decides to make the hull from TL15 materials. This increases the cost by MCr 4,125, but increases both hull and structure points from 1,500 to 2,143.

Now Julia decides to add armour. She decides on 10 points of bonded super dense armour. This takes up (10/6 x 5%) 6,250 tons of the ship at a cost of MCr (7,500/2 x 1.1 x 10/6) MCr 6,875.

SUMMARY SO FAR

	Tons	Price
Hull	(75,000)	7,500
Configuration – Cone		750
TL 15 materials		4,125
Armour 10pts	6,250	6,875
Running Total	(68,750)	19,250

Step 2 – Choosing Drives

In her campaign, Imperial warships have the maximum possible thrust and at least Jump-3 performance. As this is a cruiser designed to operate away from the main fleet, Julia decides that the performance should be a little better at Jump-4. Julia will fit drives capable of 6G, which means the power plant will also be rated at 6. She decides to have a TL15 fusion power plant.

The Jump Drive is 3,750 tons and costs MCr7,500. The Manoeuvre Drive is 2,437.5 tons and costs MCr1,218.75 and the Power Plant is (0.05x0.75x7500) 2,812.5 tons and costs MCr7,031.25.

She decides to fit armoured bulkheads from the expanded ship design section to the drive systems to improve their resistance to damage (systems with armoured bulkheads ignore the first hit against them). These are 900 tons and cost MCr 180.

SUMMARY SO FAR

	Tons	Price
From Step 1	(68,750)	19,250
Jump-4	3,750	7,500
Manoeuvre-6	2,437.5	1,218.75
Power Plant-6 (TL15)	2,812.5	7,031.25
Armoured Bulkheads	900	180
Running Total	(58,850)	35,180

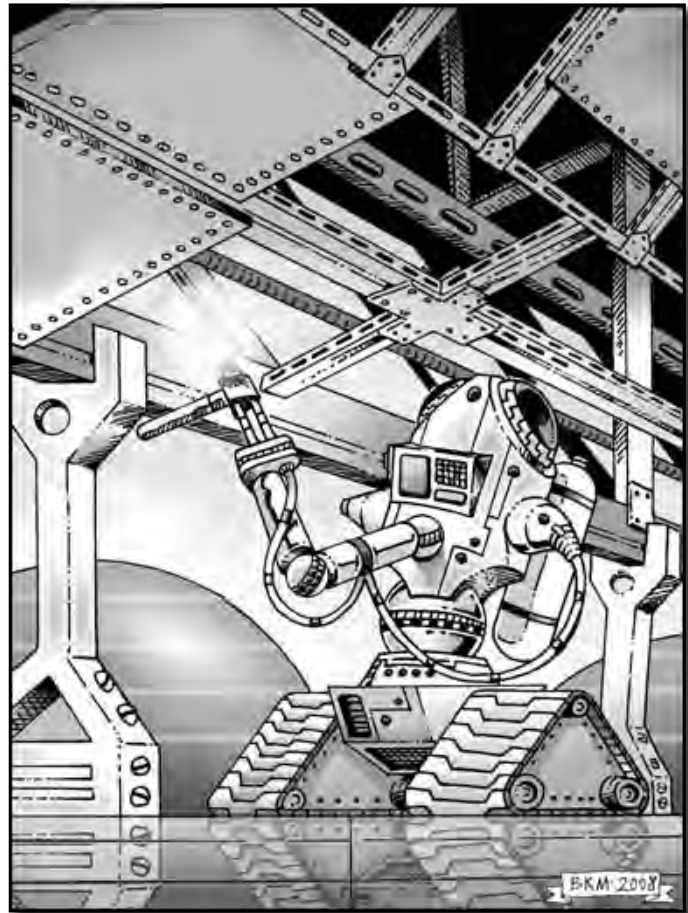
Julia chooses to work out the crew of the ship now. She decides that she wants an over strength crew (she is worried about the effects of radiation damage). Normally the engineering crew consists of one person per 100 tons of engines, but Julia decides this should be 1.21 crew per 100 tons instead. As the ship has 9,000 tons of drive, she needs (90*1.21) 109 engineering crew.

Step 3 – Fuel

Julia decides that her heavy cruiser will be capable of 1 4 parsec jump and 4 weeks power plant endurance. Jump fuel required is (0.4 x 75,000) 30,000 tons. Power plant fuel is (2812.5 x 2/3 x2) 3,750 tons. She chooses at this time to fit fuel scoops (MCr 1) and a fuel processor capable of purifying all her fuel in 2 days that is (37,500 /20 /2) 843.75 tons and costs MCr 42.1875.

SUMMARY SO FAR

	Tons	Price
From Step 2	(58,850)	35,180
Jump Fuel	30,000	
Power Plant Fuel	3,750	
Fuel Scoops		1
Fuel Processor	843.75	42.1875
Running Total	(24,256.25)	35,223.1875



Step 4 – Command

As a 4 section ship, Julia's ship required a bridge that takes up (4 x 0.5) 2% of the ship, which is 1,500 tons and costs (1,500 x MCr1) MCr1,500. As a possible flag ship, Julia adds a command bridge which is (4 x 80) 320 tons and costs MCr2,250. She adds holographic controls for (0.25 x 3,750) MCr and adds armoured bulkheads for 182 tons and MCr36.4.

SUMMARY SO FAR

	Tons	Price
From Step 3	(24,256.25)	35,223.1875
Bridge	1,500	150
Command Bridge	320	2,250
Holographic Controls		937.5
Armoured Bulkheads	182	36.4
Running Total	(22,254.25)	39,947.0875

Julia works out the command crew now. As a ship of over 20,000 tons with an over strength crew, the cruiser's command crew is (75,000/10,000 x 5 x 1.21) 46.

Step 5 – Computers

Julia wants a computer capable of running any software simultaneously. She wants it hardened against radiation (fib) and multiple sets to protect this key system from damage. She decides on three Core/7fib computers costing (3 x 70 x 1.5) MCr315, each running Manoeuvre/o (included), Intellect, Jump Control/4 (included), Evade/3, Fire Control/5, Auto-Repair/2 and Library (included). Software cost is MCr72.

SUMMARY SO FAR

	Tons	Price
From Step 4	(22,254.25)	39,947.0875
Computers		315
Software		72
Running Total	(22,254.25)	40,334.0875

Step 6 – Sensors

As her heavy cruiser will often be on independent operations, she wants her ship to have the best possible sensors. She selects a military countermeasures suite (20 tons MCr25) and fits both enhanced signal processing (2 tons MCr 8) and distributed arrays (triple the total – 66 tons MCr99). For redundancy, she fits three sets (she could have had 4).

SUMMARY SO FAR

	Tons	Price
From Step 5	(22,254.25)	40,334.0875
Military CM with Enhanced Signal Processing and Distributed Arrays x 3	198	297
Running Total	(22,056.25)	40,631.0875

Step 7 – Other Components

Julia decides to fit the following extra components:

- Luxuries for 20 high passage (10 tons MCr1) for high ranking command staff, diplomats and other passengers.
- 5 Probe Drones (1 ton MCr0.5)
- Repair Drones for the ship (0.01 x 75,000) totally 750 tons and MCr 150.
- 4 Briefing rooms (16 tons MCr 2)
- Full Scale Hangars for 4 cutters and 2 pinnaces (4 x 50 x 1.3 + 2 x 40 x 1.3) totalling 364 tons and costing (364 x 0.2) MCr72.8. Small craft costs are MCr152 and require a total of 18 crew.

Julia could choose the number of escape pods and the size of the armoury but wants to wait until the rest of the ship is designed before determining how many of these she needs.

SUMMARY SO FAR

	Tons	Price
From Step 6	(22,056.25)	40,631.0875
Luxuries	10	1
Probe Drones	1	0.5
Repair Drones	750	150
Briefing Rooms	16	2
Cutter Hangars	260	52
Pinnacle Hangars	104	20.8
Cost of Small Craft		112

Running Total	(20,915.25)	41,009.3875
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Step 8 – Weapons

At this stage Julia reminds herself that as she has a rating 6 powerplant in her Tech Level 15 ship, she can fit level 6 screens in each group and a maximum of (6 x 75,000/1,000) 450 bays. The ship has 750 hardpoints.

Julia decides to fit a Meson Gun Type C at Tech Level 15. This weapon is 4,000 tons, costs MCr4,000, inflicts 455 damage, has a penetration rating of IV and uses 40 hardpoints. Julia has 710 left. The spinal mount is protected with armoured bulkheads using 400 tons and costing MCr80.

The following bays are fitted:

- 10 Tech Level 14 100 ton meson gun bays with accurate and high yield characteristics. Size remains 101 tons and each now costs MCr 200. Total is 1,010 tons and MCr 2,000. 700 hardpoints remain.
- 80 Tech Level 12 50 ton torpedo bays are fitted with no special features. Size is now 31 tons each and cost is MCr 24 each. Total is 2,480 tons and MCr 1,920. 620 hardpoints remain.
- All the bays are fitted with armoured bulkheads. This uses 349 tons and costs MCr69.8.

For turrets, Julia fits the following:

- 80 Tech level 11 triple Particle Beam turrets with accurate and high yield special features. Each particle beam now costs MCr8. Total is 80 tons and MCr 2,000. 540 hardpoints remain.
- 240 Tech level 10 triple beam laser turrets with accurate and high yield special features. Each beam laser now costs MCr2. Total is 240 tons and MCr1,680, 300 hardpoints remain.
- 100 Tech level 8 triple missile turrets. Total is 100 tons and MCr325. 200 hardpoints remain.
- 200 Tech level 7 triple sandcaster turrets. Total is 200 tons and MCr350. 0 hardpoints remain.
- All the turrets are fitted with armoured bulkheads. This uses 62 tons and costs MCr12.4.

Ammunition Loadout is as follows:

- 12 salvoes for each of the torpedo banks for a total of (12 x 3 x 80) 2,880 torpedoes using 7200 tons.
- 20 salvoes for each of the missile turrets for a total of (20 x 3 x 100) 6,000 missiles using 500 tons.
- 20 salvoes for each of the sandcaster turrets for a total of (20 x 3 x 100) 12,000 barrels using 600 tons.

Screen protection is as follows:

- Level 6 Tech level 15 nuclear damper with no special features. It uses 144 tons and costs MCr600.
- Level 6 Tech level 15 meson screen with no special features. It uses 252 tons and costs MCr1,080.
- All screens are fitted with armoured bulkheads. This uses 39.6 tons and costs MCr7.92

SUMMARY SO FAR

	Tons	Price
From Step 7	(20,915.25)	41,009.3875
Meson Gun C-15	4,000	4,000
Spinal Mount armoured bulkheads	400	80
10 100 ton Meson Gun-14 Bays	1,010	2,000
80 50 ton Torpedo Bays-12	2,480	1,920
Bay armoured bulkheads	349	69.8
80 Triple Particle Beam-11 turrets	80	2,000
240 Triple Beam Laser-10 turrets	240	1,680
100 Triple Missile-8 turrets	100	325
200 Triple Sandcaster-7 turrets	200	350
Turret Armoured Bulkheads	62	12.4
2,880 torpedoes	7,200	
6,000 missiles	500	
12,000 sandcaster barrels	600	
Level 6 Nuclear Damper-15	144	600
Level 6 Meson Screen-15	252	1,080
Armoured bulkheads for screens	39.6	7.92
Running Total	(3,258.65)	55,134.5075

Julia decides to work out the gunnery crew now. For basic levels, the spinal mount requires (4000/100) 40 crew, the 90 bays require 180 crew and the 12 screens require 48 crew. She decides to provide 40 gunners for the particle beam turrets (1 per 2 turrets), 120 for the beam laser turrets (1 per 2 turrets), 25 for the missile turrets (1 per 4 turrets) and 20 gunners for the sandcaster turrets (1 per 10 turrets). Total gunnery crew for 100% manning is 473. For over strength (121-150%) manning, 573 gunnery crew are required.

Step 9 – Crew

Julia decides to embark 2 companies of marines (250). The service crew requirements at over strength levels are (1.21*75,000*2/3) 182. Previously calculated crew are 109 engineers, 46 command, 18 flight and 573 gunners. Total crew is 1,178 at 121% of normal manning. Julia decides to not have a frozen watch.

Step 10 – Accommodation and Remaining Components

Julia decides to carry 20 passengers. She fits a total of 44 armouries (88 tons MCr22) for the crew and marines. Total stateroom requirement is 632 (2,528 tons MCr 316) with command and passengers in single berth staterooms and everybody else in double berth staterooms. All staterooms are fitted with escape pods (316 tons MCr63.2).

SUMMARY SO FAR

	Tons	Price
From Step 8	(3,258.65)	55,134.5075
44 armouries	88	22
632 staterooms	2,528	316
632 escape pods	316	63.2
Running Total	(326.65)	55,535.7075

Cargo is 326.65 tons.

Total cost is MCr 55,535.7075. Life support costs are (632 x 3,000) MCr1.896 per month. Maintenance costs are (55,508.7075/12 x 0.001) MCr4.6257 per month.

Julia now lays out the section hit table and fully writes up the ship's details, which can be found on page 119.

EXPANDED SPACE COMBAT

RANGE

The accuracy of weapons depends on range, with the massive distances involved affecting the accuracy of targeting, attenuating the damage inflicted by beam weapons and introducing latency into firing solutions and control of missiles and torpedoes.

To hit a target with a missile, Roll for Accuracy using Gunner (Turret) or Gunner (Capital Weapons), as appropriate, modified by the Weapon ranges table, below.

Next, consult the Missile To Hit table below to find the target number that the Gunner must make, on 2D, using either Gunner (Turret) or Gunner (Capital Weapons), for the missile to strike its target.

Gunnery Accuracy Check	Missile to Hit Roll	Gunnery Accuracy Check	Missile to Hit Roll
Failed with Effect –6 or Less	11+	Succeeded with Effect 0	8+
Failed with Effect –2 to –5	10+	Succeeded with Effect 1–5	7+
Failed with Effect –1	9+	Succeeded with Effect 6+	6+

Some weapons have fixed limits on the range as indicated in the expanded spacecraft construction chapter. Spinal mounts have an additional –1 DM if shooting at close or adjacent range.

CAPITAL SHIPS & INITIATIVE

The basic *Traveller* space combat rules call for a ship's captain to roll 2d6 for Initiative, with the faster vessel gaining a +1 DM. Actions and damage take place in order of Initiative.

For capital ships, Initiative works differently.

Rolling for Initiative: Capital ships roll only 1d6 for Initiative, but add their Crew Skill to their total Initiative. The fleet commander may also make a Tactics (Naval) Check and add the effect to the fleet. Optionally, a chained roll (see *Traveller* core rulebook page 51) can be made by the fleet commander, and each ship captain may make their own Tactics (Naval) check.

Resolving Attacks: Instead of resolving all attacks from a ship at once, capital ships trade barrages or other combat actions such as boarding or moving. All ships in a battle make one attack in descending order of Initiative, then the order of actions loops back around to the vessel with the highest Initiative again. Keep looping until all ships have taken all the combat actions they wish to take.

BARRAGES

The basic *Traveller* space combat rules track each individual laser beam and missile. The average Free Trader vessel has only two or three turrets and a handful of weapons, so it is reasonable to deal with each attack roll singly. However, the average capital ship mounts *hundreds* of turrets and dozens of bays. While it is still possible to deal with all the attacks from a capital ship broadside individually, few referees have the patience to bother with several thousand dice rolls.

To deal with large numbers of simultaneous attacks, *High Guard* introduces the concept of the barrage attack. At its simplest, the barrage attack involves taking all attacks of the same type on the same target as a single attack. The size of the barrage is measured by the number of dice involved. For example, a beam laser deals 1d6 damage, so a barrage from fifty beam lasers would be a fifty dice barrage.

The damage from each individual weapon must still be noted, though, as armour is obviously much more effective against smaller weapons than larger ones. The notation for a barrage is therefore:

(Number of Dice) – (Weapon Type) – Range – (Individual Weapon Damage in dice).

WEAPON RANGES

Weapon or Optimum Range	Range								
	Adjacent (small craft shooting)	Adjacent	Close	Short	Medium	Long	Very Long	Distant	Very Distant
Missile*	–2	N/A	N/A	–1	+0	+0	+0	–2	Out of Range
Torpedo	–2	–3	–2	–1	+0	+0	+0	–2	Out of Range
Short	+0	–1	+0	+0	–4	Out of Range	Out of Range	Out of Range	Out of Range
Medium	–1	–2	–1	+0	+0	–2	–4	Out of Range	Out of Range
Long	–1	–3	–1	+0	+0	+0	–2	–4	Out of Range
Very Long	–1	–3	–1	+0	+0	+0	+0	–2	Out of Range

*Missile accuracy is not dependent on range save at very high distances. Missiles cannot be used against targets at Adjacent and Close ranges.

For example, the fifty beam laser barrage mentioned above would be noted as **50-Beam Laser-Medium-1** and a barrage from ten missile 50 ton bays of multiple warhead missiles at long range would be noted as **10-Missile-Long-12**.

At minimum, a barrage must include ten weapons of the same time or all the weapons on the ship of that type if fewer are mounted.

Configuration: A capital ship cannot always bring all its weapons to bear at all times. Each configuration of capital ship lists a percentage value; this is the percentage of turrets or bays that can be aimed at a single target. The size of a barrage aimed at that target is therefore capped by this percentage.

Barrage Attacks

A barrage does not 'hit' or 'miss' as a whole. Even an inaccurate barrage will usually score one or two minor hits. Instead, the more accurate the barrage is, the more damage it deals. An attack with a barrage roll is made by rolling two dice and with dice modifiers for range, fire control software, dodging, Gunner skill and ship defences. The modifiers for range, fire control software, dodging and skill are as normal spacecraft combat. The modifiers from the ship defences are worked out below. Note that the missile launch accuracy check and the help line up a shot check are not used in capital ship combat.

For example, the Bucephalus launches a flight of two hundred nuclear missiles at long range at the Victory. Each nuclear missile deals 2d6 damage, so it's a 200-Nuclear Missile-Long-2 Barrage. The crew of the Bucephalus have a skill rating of 3 and operating fire control/4. The Victory reacts to the fire by dodging, with the crew passing the check. The total modifiers for this barrage (so far) are range (+0), dodging (-2), skill (+3) and fire control (+4) for a total of +5. The Bucephalus rolls 7 on two dice. The net score, before taking account of defences is 12.

Barrages & Defences

Barrage attacks interact with defences slightly differently to normal attacks. Instead of reducing the damage directly, defences such as armour or sand provide a DM to the attack roll. Add up the protection offered by the defences, and then subtract it from the individual weapon damage score to determine the final DM.

Armour: Armour contributes directly to defence against all types of attack. Add the armour rating to the defence total. (Note that this means that armour works better against barrages than against individual attacks).

Sand: Sand protects against incoming laser attacks and missile attacks fired from medium range or longer. Roll 1d6 for the amount of protection offered by a sand cloud, modified as below. If the modified dice roll is zero or less, the sand protection modifier is zero.

Ratio	Protection
Number of sandcasters is 110% or more than the number of lasers or missiles	+2
Number of sandcasters is within 10% of the number of lasers or missiles	+0
Number of sandcasters is 90% or less than the number of lasers or missiles	-2
Incoming attacks are high energy lasers from bomb pumped torpedoes	-2
Crew Gunner 3+	+1

Screens: Screens apply only against attacks of the appropriate type (nuclear dampers vs nuclear missiles or fusion beams, meson screens against meson guns). Note that nuclear dampers are not effective against bomb-pumped torpedoes as these detonate beyond the effect of the damper. Screens offer two points of protection per screen.

Configuration: Certain ship configuration offer protection against meson weapons as they are particularly compact, increasing the likelihood of decay occurring outside the ship.

Dispersed Structure and buffered planetoid	DM+4
Needle/wedge, cone and standard (cylinder)	DM+2
Close structure, sphere and planetoid	DM+0

Point Defence Lasers: Point defence lasers protect only against incoming missile attacks. Roll 1d6 for the amount of protection offered by lasers, modified as below. If the modified dice roll is zero or less, the point defence laser protection modifier is zero.

Ratio	Protection
Number of lasers is 110% or more than the number of missiles	+2
Number of lasers is within 10% of the number of missiles	+0
Number of lasers is 90% or less than the number of missiles	-1
Barrage consists of bomb pumped torpedoes	-2
Crew Gunner 3+	+1

For example, the Bucephalus missile flight has a net dice score of 12 before defences are taken into account. The Victory has 2 points of armour, fifty lasers and sixty sandcasters for point defence and two nuclear dampers and her crew is skill level 3.

The protection from the armour is 2 and 4 from the nuclear dampers. The protection from the lasers is d6 modified by the crew skill (+1) and number of lasers (90% or less, -1). The dice roll is 2, so the total laser defence is 2. The protection from the sandcasters is d6 modified by the crew skill (+1) and number of sandcasters (90% or less, -2). The dice roll is 1, giving a score of 0, so the total sandcaster defence is 0.

The total defensive DM is then 2 (armour) +4 (screens) +1 (lasers) +0 (sandcasters) = 7. Hence the net barrage score is 12-7=5.

Splitting Barrages

Not all of a ship's weapons of a particular type need be aimed at a single target. A ship with 100 laser turrets and thirty fusion bays, for instance, can fire fifty laser turrets and thirty fusion guns at one target, 25 lasers at another target, and 25 at a third. It may not, however, fire multiple barrages of the same at a single target – it could not fire fifty lasers at a target in one barrage and then fire another fifty in a second barrage. All barrages of the same type on the same target must be combined into one.

Barrage Damage

The damage from the barrage is determined from the following table, using the net dice score. Barrage damage is rounded down.

On small craft or spacecraft, multiply the final barrage total by 3 to determine the actual amount of damage inflicted by the attack. If the barrage total is greater than the ship's remaining Hull + Structure, assume that the ship is annihilated by the attack instead of working out each individual hit.

On capital ships, barrage damage works slightly differently. See Capital Ship Damage, below.

For example, the *Bucephalus* has launched a flight of two hundred nuclear missiles at the *Victory* with a net score of 5.

A net dice roll of 5 gives 50%, so *Victory* is hit by 100 nuclear missiles for a total of 200 points of damage.

Spinal Weapon Attacks

To hit with a spinal mount is a Formidable task (-6 DM), with the following modifiers: fire control software (up to +5 DM), crew skill (typically +3 to +5 DM), range modifier, dodge modifier, if a Pilot skill check is successful (-2 DM) and a size modifier. All spinal mounts have an optimum range of Long. The size modifier is as follows:

- Ships under 10,000 tons DM -1
- Ships under 1,000 tons DM -2
- Ships under 100 tons DM -3

Example *ISS Implacable* fires at *CNS Zdatl*. DMs are task (-6), fire control/5 (+5), experienced crew (+3), *Zdatl* is dodging (-2) and *Zdatl* is 500,000 tons (DM-0). Net DM is -6+5+3-2=0. *Implacable* will hit on a raw dice score of 8+.

Before they can damage their target, Meson Guns must penetrate the target's meson screen and ensure that it decays within the ship. Compare the penetration rating of the meson gun with the configuration of the ship and the number of screen points being generated (2 or screen or 3 if the screens to full action is being used) and roll the number indicated or more on 2d6 to penetrate the ship's defences.

BARRAGE DAMAGE

Barrage Attack Roll	% Barrage Damage	5-Dice Barrage	10-Dice Barrage	12-Dice Barrage	20-Dice Barrage	50-Dice Barrage
2 or less	0%	0	0	0	0	0
3	10%	0	1	2	2	5
4	25%	2	3	3	6	20
5	50%	3	5	6	10	30
6	75%	4	8	9	16	40
7	100%	5	10	12	20	50
8	125%	6	13	15	26	60
9	150%	7	15	18	30	70
10	175%	8	18	21	36	80
11	200%	10	20	24	40	100
12	225%	12	23	27	46	120
13	250%	13	25	30	50	130
14	275%	14	28	33	56	140
15	300%	15	30	36	60	150
16	400%	20	40	48	80	200
17 or more	500%	25	50	60	100	250

Meson Gun Penetration Rating						
	Screen Points	I	II	III	IV	V
Close, Sphere or Planetoid	o	Automatic Penetration	Automatic Penetration	Automatic Penetration	Automatic Penetration	Automatic Penetration
	Up to 4	6	4	Automatic Penetration	Automatic Penetration	Automatic Penetration
	6	7	5	3	Automatic Penetration	Automatic Penetration
	8 or 9	8	6	4	Automatic Penetration	Automatic Penetration
	10	9	6	4	Automatic Penetration	Automatic Penetration
	12	10	8	6	4	Automatic Penetration
	15	11	9	7	5	3
	18	12	10	8	6	5
Cone, Needle/ Wedge or Standard (Cylinder)	o	4	Automatic Penetration	Automatic Penetration	Automatic Penetration	Automatic Penetration
	Up to 4	6	4	Automatic Penetration	Automatic Penetration	Automatic Penetration
	6	7	5	3	Automatic Penetration	Automatic Penetration
	8 or 9	9	6	4	Automatic Penetration	Automatic Penetration
	10	9	7	5	Automatic Penetration	Automatic Penetration
	12	9	8	6	4	Automatic Penetration
	15	11	9	7	5	Automatic Penetration
	18	12	10	8	6	5
Dispersed or Buffered Planetoid	o	8	6	5	4	Automatic Penetration
	Up to 4	8	7	5	4	Automatic Penetration
	6	9	7	5	4	Automatic Penetration
	8 to 10	10	8	6	4	Automatic Penetration
	12	11	9	6	4	Automatic Penetration
	15	11	9	7	5	3
	18	12	11	8	6	5

Spinal Weapon Damage

Particle Beam spinal mount damage is reduced by the amount of armour. Reduce Damage by 30 per point of armour. Damage can not be reduced below zero. However, there is still residual damage arising from the spinal weapon hit. Take 10% of the damage value of the particle beam hit absorbed by the armour and treat this as a standard barrage hit (although on a single section), even if the spinal weapon otherwise did no damage. This residual damage cannot inflict system hits. Note that a meson spinal mount does not inflict residual damage.

For example a 200 damage particle beam spinal mount hits a ship with 4 points of armour. $(200 - (4 \times 30))$ 80 damage is treated as spinal weapon damage and $(4 \times 30 \times 10\%)$ 12 damage is treated as a barrage hit on the hit section.

For example the same 200 damage particle beam spinal mount hits a ship with 8 points of armour. $(200 - (8 \times 30))$ 0 damage is treated as spinal weapon damage and (10%) 20 damage is treated as a barrage hit on the hit section.

Both types of spinal mount inflict radiation damage. Divide the damage inflicted on the ship by the spinal mount (including residual damage from particle beam hits) by 6 (rounding down) to find the radiation damage inflicted. Divide further by 2 if the hull has radiation shielding.

Using the first example above, the particle beam inflicted a total of 92 points of damage. The radiation hits inflicted are $(92/6)$ rounded down) 15.

Spinal mount damage is then resolved as below.

CAPITAL SHIP DAMAGE

On board a capital ship, there are dozens of mechanics and repair robots working constantly to reactivate damaged systems, and there are too many turrets and other components to track damage individually. The normal damage rules can be used when a starship or small craft is attacking a capital ship, with one exception – it is impossible to inflict a third hit on a Drive, Power Plant, Sensor or Bridge system on a capital ship.



For barrage attacks on a capital ship, follow these rules:

Location

First, determine the location of the attacks by rolling for the section struck.

Adjacent Locations: A turret, barbette or bay attack splits its damage 50/50 between the section hit and any one adjacent section chosen by the attacker. Spinal mount damage is inflicted on a single section. For example, on the CF-code hull, Engineering is adjacent to the Main section, and the Forward section is adjacent to the Main section, and the Main section is adjacent to both.

Apply Damage

Subtract the damage inflicted by the attack from the Hull score of the damaged section. If a section is reduced to zero Hull in a barrage, remaining damage is subtracted from the Structure score of the

DAMAGE LOCATION

	Hull Code				
Roll	CA to CE	CF to CK	CL to CQ	CR to CV	CW to CZ
1	Engineering	Engineering	Engineering	Engineering	Engineering
2	Engineering	Engineering	Amidships	Aft	Aft
3	Engineering	Main	Amidships	Amidships	Lower Amidships
4	Forward	Main	Main	Main	Upper Amidships
5	Forward	Forward	Main	Main	Main
6	Forward	Forward	Forward	Forward	Forward

same section. If the hull score of the hit section is already zero, all damage is subtracted from the subtracted from the Structure score of the same section. Meson weapons are the exception as damage is inflicted on Structure instead. If a section is reduced to zero Structure, it is destroyed and the ship is crippled or destroyed.

Roll for System Damage

A barrage hit may inflict some system damage if the net Barrage Attack Roll was an 8+. Roll on the Section Hit Table for the section or sections struck by the attack to determine which system is damaged. If the damaged section still has Hull remaining, roll on the External column; otherwise, roll on the Internal column. Meson weapons only roll on the internal column. Spinal weapons roll a number of times on the section hit table, with one roll for every 50 points of damage inflicted (excluding residual particle beam weapon damage).

Turrets:

First Hit: A turret hit gives a -1d6DM to all turret barrages of that type. Reroll the DM for each barrage until repaired.

Second Hit: Increase the DM to -1d6+1.

Third Hit: Turrets can no longer fire.

Bay:

First Hit: A Bay hit gives a -1d6DM to all bay barrages of that type. Reroll the DM for each barrage until repaired.

Second Hit: Increase the DM to -1d6+1.

Third Hit: Bays can no longer fire.

Hull: A hull hit indicates an explosion on the surface, and inflicts extra Hull damage equal to half the damage inflicted by the barrage.

Armour: An armour hit reduces the armour of that section by 1.

Structure: A structure hit indicates an external explosion or structural failure, and inflicts extra Structure damage equal to half the damage inflicted by the barrage.

Spinal Weapon:

First Hit: A spinal weapon hit gives a -2 DM to spinal weapon attacks.

Second Hit: The spinal weapon is disabled and can no longer fire.

Screen: Damage to a screen reduces its protection by 2 until repaired.

Jump Drive:

First Hit: The first hit on a Jump drive gives -1d6DM to all Jump attempts until repaired.

Second Hit: The jump drive is disabled.

Manoeuvre Drive: Each hit on a Manoeuvre drive reduces the ship's Thrust by 1 until repaired.

Power Plant:

First Hit: Damage to a Power Plant reduces a capital ship's ability to employ its energy weapons or engines. Reduce the ship's Power Number by 1, which may also reduce its ability to employ weapons and its Thrust or Jump.

Second Hit: Decrease the ship's Power Number by 2.

Third Hit: Power plant is disabled, disabling the entire ship.

Fuel: 1d6x5% of fuel reserves are lost. Halve this value if metal hydride storage is used in this section. If different fuel types are present roll to determine which is hit.

Sensors:

First Hit: -1d6DM to all Sensors checks made using the sensors in that section. Roll this DM once; it remains until repaired.

Second Hit: Sensors in that section are disabled.

Computer:

First Hit: All rolls made by the capital ship suffer a -1DM.

Second Hit: All rolls made by the capital ship suffer a -1d6DM, rerolled each time.

Third Hit: Computer is disabled; the ship cannot jump or fire weapons at targets beyond Close range.

Bridge:

First Hit: A bridge hit prevents the ship from manoeuvring or jumping next round.

Second Hit: The bridge is destroyed. Command automatically transfers to another section, but the ship's Initiative is halved.

Crew: A crew hit reduces the Crew Strength by one step.

Critical Hit

If a section suffers a critical hit, something has gone drastically wrong. Roll 1d6 on the Critical Hit table:

1. Power Failure: The section goes offline for one round. Weapons and components in the section cannot be used next round.

2. Structural Failure: A whole section of the ship shears away. Reduce the remaining Hull of the section by 50%. If no hull remains, reduce the remaining Structure by 50%.

3. Hull Breach: Repairs cannot be conducted on this section for one round, as the repair crews need to fix the hull breach. Also inflicts a Crew Hit. A self-sealing hull means that the breach is automatically fixed, so repairs can take place immediately.

4. Internal Explosion: The explosion inflicts 6d6 Structure damage and another Section Hit.

5. Cascade Failure: Roll again twice on the Section Hit table.

6. Fire: Fire suppression systems fail, and an inferno rages through the section. The crew must roll Discipline 8+ to put the fire out next round, or it will inflict another Section Hit. If not put out, the target number rises by +1 each round (Discipline 9+ in round two, 10+ in round 3). At 12+, the fire spreads to another section, starting at 8+ there. If metal hydride fuel is stored in this section the Discipline target number is reduced by 2.

Radiation Attacks

Some weapons, such as nuclear missiles or meson weapons, can cause radiation hits. The more radiation, the more likely it is that the ship suffers a Crew, Computer or Sensor Hit. Ships with nuclear dampers or radiation shielding will suffer no radiation damage from nuclear weapons or fusion guns. Ships with armour ratings of 8 or more ignore radiation hits from all but meson weapons.

For barrage weapons each nuclear missile, fusion gun, particle beam and meson weapon will inflict the radiation hits on the basis of the percentage score on the barrage table multiplied by the crew hit per weapon (1 except for meson flicker weapons) and be placed in a damage band. Reduce the damage band by the armour rating of the ship for all bar meson weapons and by the meson screen rating for meson weapons. Reducing the damage band to 0 results in no damage. Then compare the damage to determine the throw needed to inflict a hit.

For example, a barrage of 40 nuclear missiles rolls a 6 on the barrage table. The radiation damage inflicted is equal to $(40 \times 75\% \times 1)$ 30. This is damage band 4. The target has armour 2. The revised damage band is 2.

For example, a barrage of 10 50 ton meson flicker bays rolls 5 on the barrage table. As a 50 ton meson flicker bay usually inflicts $d6+3$ radiation hits, another $d6$ is rolled for a score of 6. The radiation damage inflicted is equal to $(10 \times 50\% \times (6+3))$ 45. This is damage band 6. The target has a meson screen 3. The revised damage band is 3.

Repairing Damage

A capital ship may attempt to repair one system per section during the Ship Action phase, as normal. Multiple attempts may be made to repair a damaged system if it extends through multiple sections.

For example, a spinal weapon extends though the Forward and Main sections of a destroyer. The spinal weapon is hit by an enemy attack. The crew make one repair attempt on the spinal weapon in the Forward section, but fail to repair it. The repair attempt for the Main section is also spent on the spinal weapon, and this time they are able to repair the damage.

Crew Hits

Each crew hit reduces the ship's crew by one step – from Full to Weakened, Weakened to Half, Half to Skeleton and so on. Reduced crews affect a ship's ability to fight.

Crew Strength	Skill DM	
Dead	–	Cannot act
Survivors	–4	May only fire once every five rounds
Skeleton	–2	May only fire once every three rounds
Half	–1	May only fire once every two rounds
Weakened	+0	
Full	+0	
Battle	+0	
Overstrength	+0	
Massively Overstrength	+0	

The Frozen Watch: Many warships carry extra crew in low berths. These men of the frozen watch can be revived to provide reinforcements in the midst of battle. Reviving the frozen watch may be done at any time but takes 6 turns to thaw, brief and get to the right place. Until the 6 turns have passed, the ship will suffer from any applicable skills DMs.

RADIATION DAMAGE

Radiation Damage	Damage Band	Crew Hits	Computer Hits	Sensor Hits
1–10	1	6+	0	0
11–15	2	5+	0	0
16–20	3	4+	6+	0
21–30	4	3+	5+	0
31–40	5	2+	4+	6+
41–50	6	Auto	3+	5+
51–60	7	Auto	2+	4+
61–80	8	Auto	Auto	3+
81–100	9	Auto	Auto	2+
101+	10	Auto	Auto	Auto

FIGHTER FLIGHTS

A large number of spacecraft can be combined into a *flight*, which allows them to act in concert and act as a single unit, concentrating their attacks into a barrage. The skill level of the flight is the average skill of the craft in the flight; the thrust of the flight is equal to the lowest Thrust of the craft in the flight – with the proviso that the flight must remain together at all times. (Of course, the flight can then become a single target for barrages, so life could be short...)

Attacks By Flights

Flights can combine their weapons in barrages as normal.

Attacks On Flights

Attacks can be made on individual craft in the flight as normal.

Barrage attacks on flights suffer a –4 DM, representing the difficulty of hitting a distributed set of targets. Barrage damage is assumed to inflict a number of hits equal to the barrage total. Flights lose a number of craft whose combined Hull and Structure total is equal to the barrage total; any excess barrage damage is applied as normal hits. The flight will lose a maximum number a craft based on the lower of the number of mounts firing or the average gunnery crew for that weapon system. Ship designers are encouraged to provide sufficient gunners for turret weapons to maximise their anti-fighter defences.

For example, a flight of 300 fifty-ton fighters (Hull 1, Structure 1) is hit by a 200 point barrage. Rolling for barrage effectiveness, the attacker rolls a 10, –4 for targeting a flight for a result of 6, or 75% effectiveness. The resulting total is 150 points of barrage damage. Each fighter can absorb two points of barrage damage, so 75 fighters would be destroyed. However, for this weapon system the ship has the equivalent of 60 gunners, so despite the damage only 60 fighters are destroyed.

ORDERS

This section presents a set of optional rules for space combat, where the commander of a space vessel can issue one or more orders to his crew each round. Each order temporarily reduces the ship's Initiative by a certain amount, which also reduces the number of reactions the ship can take. A commander may issue any number of orders, as long as the orders do not bring the ship's Initiative below 0. Each order can only be issued once per round unless otherwise noted.

Initiative	Reactions
0–4	1
5–8	2
9–12	3
13+	4

Orders are written down secretly by each ship commander, and revealed simultaneously at the start of each round.



The format of orders is:

Order Name

Initiative Cost: This cost applies only for the round in which the order is executed.

Type: Orders fall into several types depending on when they are executed. Combat Orders are executed in the Combat Action phase, while Ship Orders are executed in the Ship Action phase. Special Orders are executed when noted in the text.

Requirements: Some orders can only be executed by a crew with a certain level of Crew Skill or other requirement.

Emergency Orders

Some orders are followed by an exclamation mark (!), denoting they are emergency orders. Emergency orders can be issued as a reaction to an attack instead of during the order phase. Only one emergency order can be issued per ship per round.

Repeatable Orders

Some orders are followed by an asterisk (*), denoting they are repeatable orders. A repeatable order can be given multiple times in one round, as long as the ship has the Initiative to allocate to it.

Line up Spinal Mount!

Initiative Cost: 2

Type: Combat

Requirements: ship fitted with spinal mount

Lining up the spinal mount with a evading target that can be tens of thousands of kms away is no easy thing and requires delicate ship handling. Without this special order the spinal mount can not be fired.

All Hands...Fire At Will!

Initiative Cost: 8

Type: Combat

Requirements: None

All the ship's energy barrage attacks are made as a single action this round.

Angle for Maximum Effect

Initiative Cost: 2

Type: Combat

Requirements: Crew Skill 2+

The ship is positioned to maximise its attack potential. Increase the percentage of weapons that can be combined into a barrage by 10%.

Blast Them As They Launch!

Initiative Cost: 2

Type: Combat

Requirements: Crew Skill 1+

Weapons are trained on enemy launch tubes and hangars. Select an enemy vessel – any small craft launched from that vessel this turn may not dodge attacks.

Board Them!

Initiative Cost: 4

Type: Special

Requirements: None

Command Discipline

Initiative Cost: 8

Type: Ship

Requirements: None

By rallying his men, the commander prepares his ship for action. Any skill checks other than Gunner checks made this round have a +1 DM.

Damn the Torpedoes!

Initiative Cost: 4

Type: Special

Requirements: Crew Skill 2+

The ship flies into the teeth of enemy fire. All attacks on it gain a +1 DM; all its attacks also gain a +1 DM.

Defensive Posture

Initiative Cost: 4

Type: Combat

Requirements: None

The ship angles itself to minimise exposure to enemy weapons fire. The percentage of weapons that can be included in a barrage is reduced by 20%, but all attacks on the ship suffer a –2 DM.

Escort Defence

Initiative Cost: 4

Type: Combat

Requirements: None

Choose a friendly ship within Close range. Attacks on that ship may be intercepted by the active ship's sandcasters, screens and other defensive weapons.

*Evasive Action**

Initiative Cost: 4

Type: Special

Requirements: None

The ship gains one extra point of thrust this round which can only be spent on dodging incoming fire, and does not count as a reaction.

Fast Strafing Run

Initiative Cost: 4

Type: Special

Requirements: Only undertaken by small craft

If the small craft flight is within Close range of a hostile target, it can manoeuvre in to undertake a low level strafing run under the elevation of the weapons on the target vessel. Shooting at the flight is at –2 DM. The fire of the flight receives a +2 DM.

Fighter Screen

Initiative Cost: 4

Type: Special

Requirements: Only undertaken by small craft

As for the escort defence, but only performed by a small craft flight. In addition, having a flight using this special order prevents the fast strafing run special order being used by attacking small craft.

Focused Fire

Initiative Cost: 6

Type: Combat

Requirements: None

The crew focus the ship's guns on a single target. The ship may only fire at one target this round, but all attacks on that target gain a +1DM.

*Get Those Engines Back On-Line**

Initiative Cost: 6

Type: Ship

Requirements: Crew Skill 3+

The crew may make two extra repair rolls this round, but only in the engineering section.

*I Only Need One More Shot**

Initiative Cost: 2

Type: Special

Requirements: Crew Skill 3+

Any one damaged weapon system is temporarily restored to full functionality for this round. At the end of the round, the system becomes disabled.

Maximum Speed

Initiative Cost: 4

Type: Combat

Requirements: None

All available power is allocated to the engines. The ship may only fire half its turrets and bays this round, rounding down, but may increase its Thrust by 1.

Opportunity Fire!

Initiative Cost: 6

Type: Combat

Requirements: None

The ship makes no attacks until all other ships have finished firing. It may then make all allowed attacks. If two or more ships declare Opportunity Fire, the ship with the highest Initiative goes first.

Prepare to Abandon Ship!

Initiative Cost: 4

Type: Special

Requirements: None

If the ship is destroyed this round, then all surviving crew make it to the lifeboats or escape pods, if any.



Prepare for Jump!

Initiative Cost: 4

Type: Special

Requirements: None

If the ship attempts to jump this round, then all Engineering (jump) or Astrogation checks have a +2 DM.

Prepare to Repel Boarders!

Initiative Cost: 4

Type: Special

Requirements: None

If the ship is boarded this round, the crew have a +1 DM to rolls on the Boarding Action table.

Prepare for Impact!

Initiative Cost: 4

Type: Special

Requirements: None

If the ship is damaged this round and suffers one or more Crew Hits, roll 1d6 for each Crew Hit. On a 4+, ignore the Crew Hit.

Roll The Ship!

Initiative Cost: 4

Type: Combat

Requirements: Crew Skill 1+

The ship rolls, making it harder to target specific sections of its hull. This gives a -2 DM to attacks using the Target That Section order.

Run Silent, Run Dark

Initiative Cost: 4

Type: Special

Requirements: None

The ship shuts down all non-essential systems and attempts to minimise electromagnetic emissions. The ship may not move or fire this round, or use any active sensor systems. All attempts to detect the ship using sensors suffer a -2 DM.

Screens to Full!

Initiative Cost: 4

Type: Special

Requirements: None

Full power is allocated to the ship's screens. Screens now provide three points of protection per screen instead of two.

*Target That Section**

Initiative Cost: 4

Type: Special

Requirements: Crew Skill 1+

One of the ship's attacks this round targets a specific section of the enemy vessel.

ALTERNATIVE MOVEMENT

An optional way of fighting space battles (be they with small craft, space craft or capital ships) is with miniatures or counters. Whilst slightly more complicated than the standard rules they give players and referees the opportunity to give their ship handling and naval tactics skills a real workout!

Timescale: As per current rules

Scale: 1 unit per 1,250 km (typically 1 unit is a centimetre or an inch)

Ranges:

Close to Short:	1 unit
Medium:	up to 8 units
Long:	up to 20 units
Very Long:	up to 40 units
Distant:	up to 120 units
Very Distant:	up to 240 units

Planets (sized as below) block line of sight. It is not possible to detect (and hence shoot) at a vessel with which your line of sight is broken.

Body	Diameter	100D Jump Limit (distance from body)
Size 1	1.3 unit	130 units
Size 2	2.5 units	250 units
Size 3	3.8 units	380 units
Size 4	5.1 units	510 units
Size 5	6.4 units	640 units
Size 6	7.7 units	770 units
Size 7	9.0 units	1,020 units
Size 8	10.2 units	1,150 units
Size 9	11.5 units	1,280 units
Size 10	12.8 units	1,280 units
Small Gas Giant ¹	36.0 units	3,600 units
Large Gas Giant ²	108.0 units	10,800 units

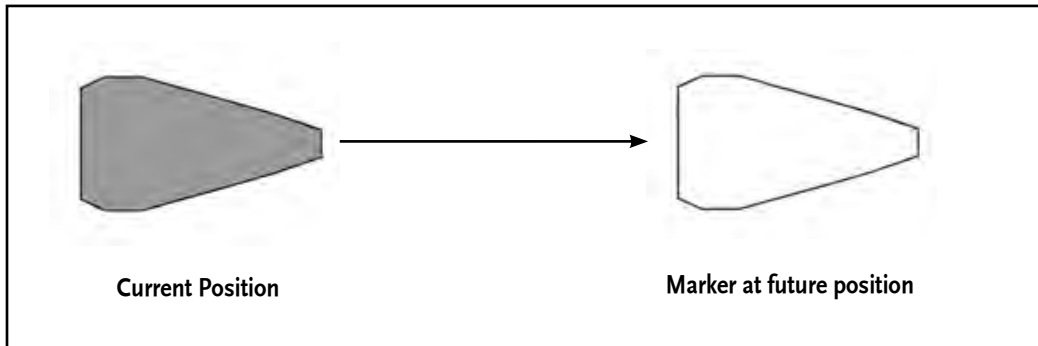
¹ Such as Neptune

² Such as Jupiter

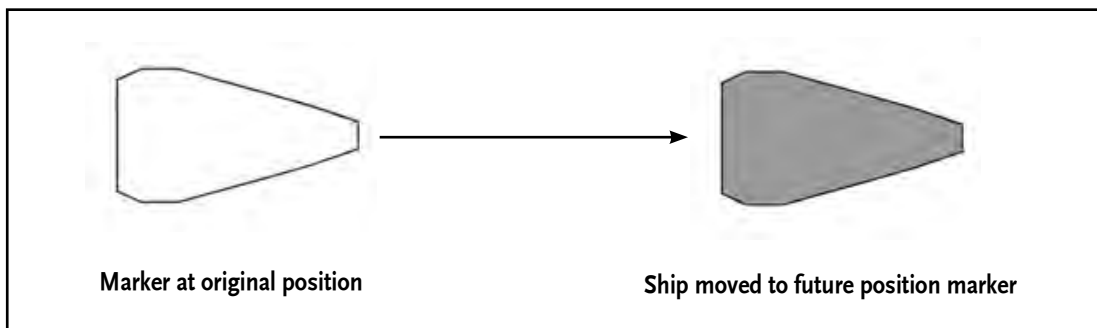
Asteroid fields are not actually dense enough to represent a hazard to piloted vessels. Individual asteroids can be up to 0.5 units across but the majority are much smaller than this. Asteroid fields should be represented as irregular shaped zones on the playing area. A vessel hiding behind one or more than 3 units within one have their lines of sight blocked.

Any vehicle, be it missile or torpedo barrage, small craft, flight of small craft, space craft or capital ship can apply thrust in any direction by its thrust value, with each thrust point changing the vector by 1 unit. The process for movement is as follows.

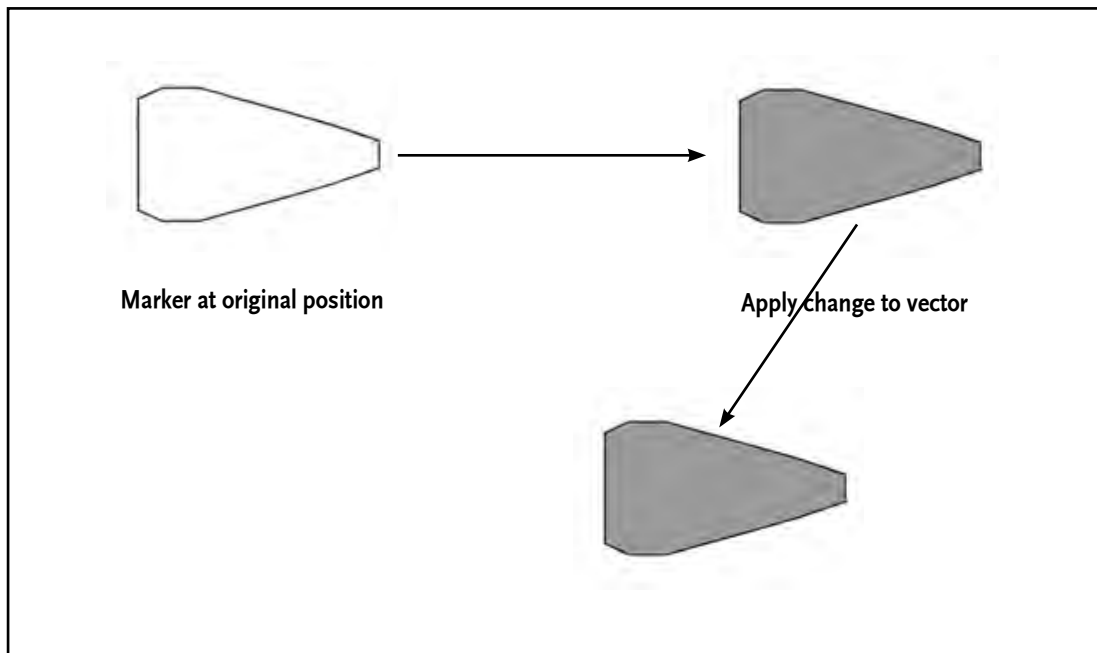
Step 1 Record future position based on current vector. A marker represents the position of the ship at the end of the turn if it maintains its current vector without any thrust changes.



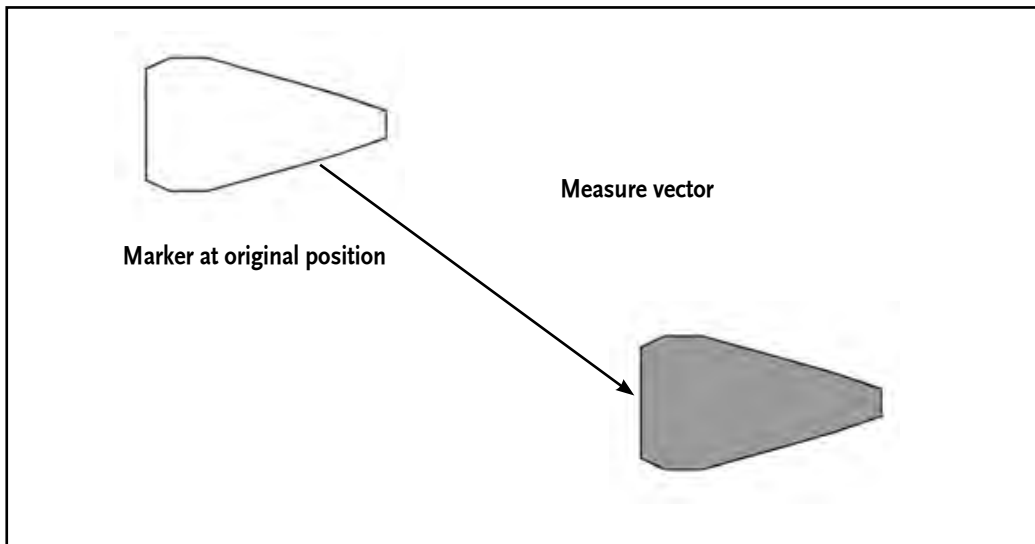
Step 2 Move ship based on current vector. The ship is moved to the position occupied by the marker. The starting position is identified with a marker.



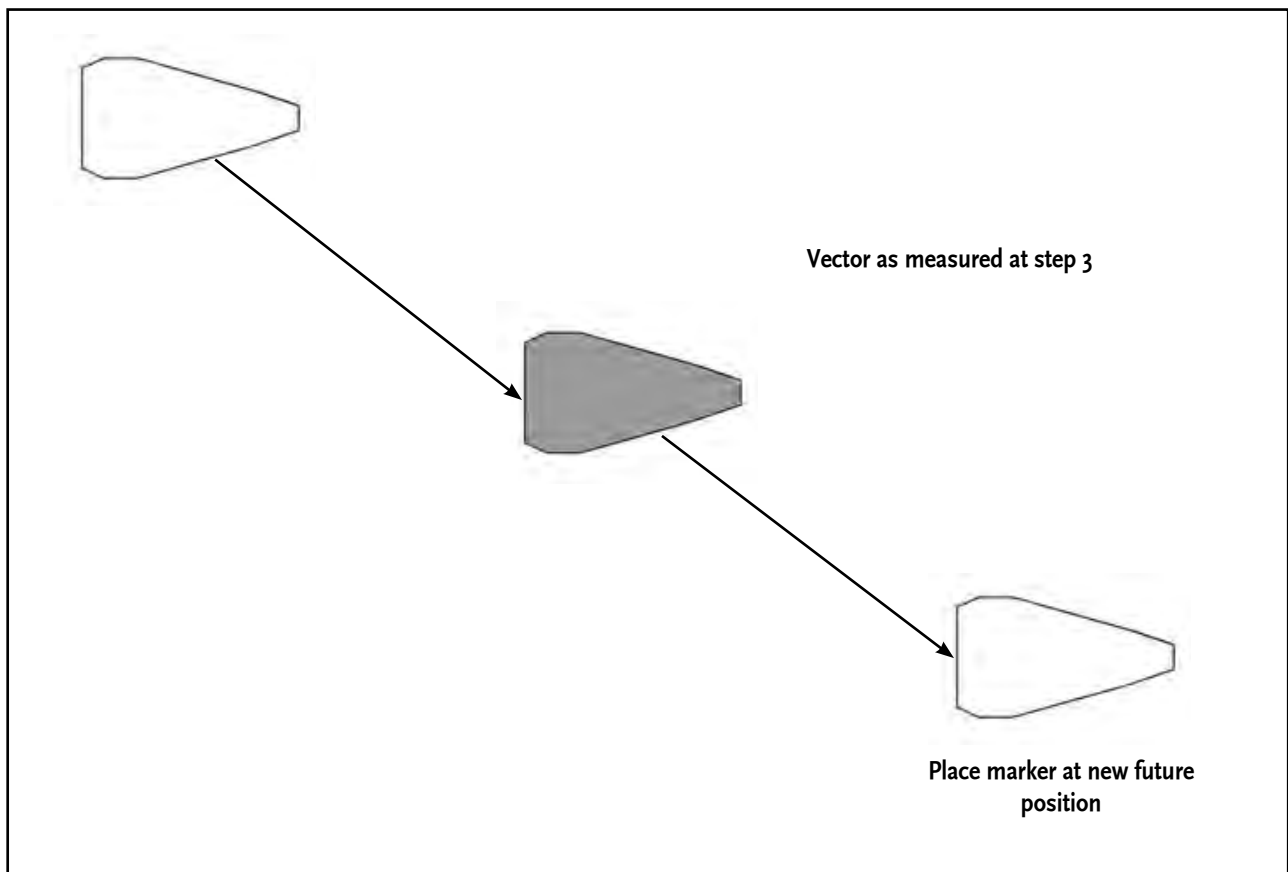
Step 3 Apply change in vector. Thrust is then applied to ship in any direction within the limits of the vessel's manoeuvre drive rating.



Step 4 Measure revised vector. The direction and distance of the ship from the marker showing the starting position of the ship should be measured.



Step 5 Determine future position. A marker showing the future position is then placed in exactly the same direction and distance measured at step 4.



Craft launching start with the base vector of their parent ship and need to match their parent ship's vector to land.

Effect of Gravity

When fighting in the presence of a significant gravity field that field acts as an additional “thrust” on the craft fighting within it. For combat purposes only gravity fields of 1G or more significantly above the planet’s surface are considered significant and hence only fields around gas giants are considered. If a ship contacts the surface of a planet at a speed of more than 1 unit per turn it is assumed to be destroyed (either burnt up or crashed).

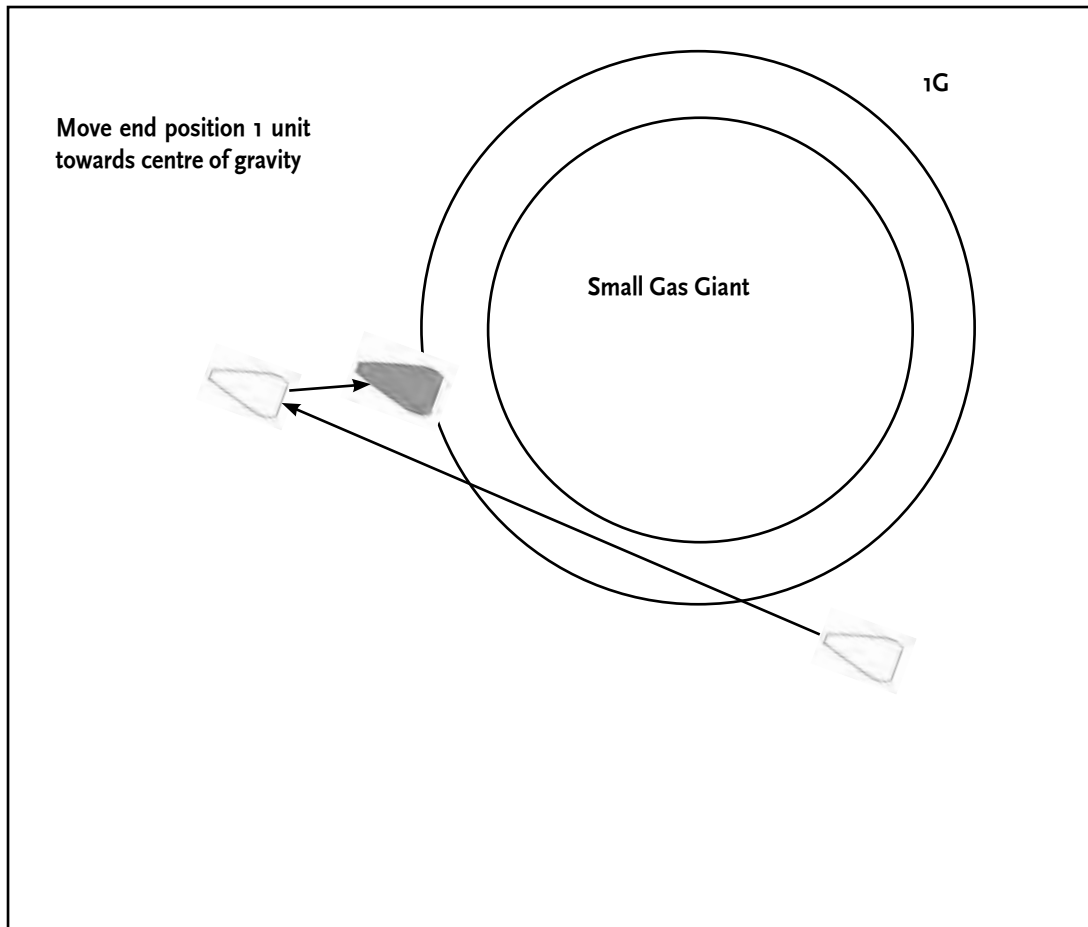
The gravity fields of gas giants are as follows:

Gas Giant	Radius of gravity field			
	1	1.5	2	2.5
Small	24	–	–	–
Large	90	72	66	60

If at any stage the path of a vessel lies within the gravity field of a body, it attracts thrust as shown below as an additional change in vector at Step 3 above.

Non–Movement Activities

Ignore the missile and torpedo ‘turns to impact’ table (see *Traveller* core rulebook page 147). Sandcaster fire is assumed to disperse in the turn it is fired and is not recorded. Missiles do not make a chained task roll for accuracy, but include the range DM from the time they are fired when making the final attack roll on the turn of impact. Every other feature of combat is exactly the same as the current rules.



SMALL CRAFT

Every industrial world produces several different models of shuttle and air/raft, so across the Imperium as a whole there are literally thousands of small craft variants. The most popular are produced and used by the megacorporations, but experienced spacefarers learn to cope with the quirks of unusual local craft. When you have flown through an enemy blockade in a craft that's more bailing wire and untested telekinesis, you can truly call yourself a traveller.

CIVILIAN CRAFT

These small craft are customarily unarmed and unarmoured, and can be encountered throughout known space.

Launch

Also termed a life boat, this craft uses a 20-ton hull. It is commonly used across the Imperium and is actually an expensive model, incorporating radiation and heat shielding and other protective measures to preserve its fragile but vital cargo. Cheaper short-range launch pods are used for salvage operations and transfers between ships and stations in orbit. This is a standard design for which the 10% discount applies (see Core Rule Book page 114).

Launch			Tons	Price (MCr)
Hull	20 Tons	Hull 0		1.32
	Streamlined	Structure 1		
	Radiation shielding			5
	Heat shielding			1
Armour	None			
Manoeuvre Drive	sA	Thrust 1	0.5	1
Power Plant	sA	Rating 1	1.2	3
	Solar Panels		0.12	0.012
	Battery	250 hours	0.3	3
Bridge	Control cabin for 2		6	0.1
Computer	Mode/1fib	Rating 5		0.045
Electronics	Standard	DM-4		
Weapons	None			
Fuel	1 ton	Two weeks of operation	1	
Cargo	5.88 tons		5.88	
Low Berths	4 Emergency low berths		4	0.4
Extras	Airlock		1	0.2
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			20	13.569

Ship's Boat

This common ship's boat is a fast and flexible small craft, which can be used as a fuel skimmer or transport. Common variants install more passenger space instead of cargo, or mount anti-personnel weapons on the outer hull. This is a standard design for which the 10% discount applies (see Core Rule Book page 114).

Ship's Boat			Tons	Price (MCr)
Hull	30 Tons	Hull 0		1.43
	Streamlined	Structure 1		
	Options			
Armour	None			
Manoeuvre Drive	sJ	Thrust 6	4.5	10
Power Plant	sJ	Rating 6	3.6	7
Bridge	Control cabin for 2		6	0.15
Computer	Model/1	Rating 5		0.03
Electronics	Standard	DM-4		
Weapons	None			
Fuel	1 ton	One week of operation	1	
Cargo	13.9 tons		13.9	
Extras	Airlock		1	0.2
	Fuel scoops			1
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			30	17.829

Pinnacle

The standard pinnacle design has a spacious cabin and is considerably more comfortable than the ship's boat for extended operations. It also has a larger six-person passenger section ahead of the cargo bay. Some models incorporate fold-out aerofins for enhanced manoeuvrability. This is a standard design for which the 10% discount applies (see Core Rule Book page 114).

Pinnacle			Tons	Price (MCr)
Hull	40 Tons	Hull 1		
	Streamlined	Structure 1		1.54
	Aerofins		2	0.2
Armour	None			
Manoeuvre Drive	sK	Thrust 5	5	11
Power Plant	sK	Rating 5	3.9	7.5
Bridge	Control cabin for 2		6	0.2
Computer	Model/1	Rating 5		0.03
Electronics	Standard	DM-4		
Weapons	None			
Fuel	2 tons	Two weeks of operation	2	
Cargo	9.6 tons		9.6	
Staterooms	Cabin for 5 (plus 1 in control cabin)		7.5	0.375
Extras	Airlock		1	0.2
	Fuel scoops			1
	Luxuries 3	Steward 3	3	0.3
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			40	20.111

Modular Cutter

The fifty-ton modular cutter is capable of good speed within a short-range operational capacity and has a crew of two. Its main feature is the 30 ton 'module bay' that allows the cutter to be quickly and easily reconfigured for different missions. Changing the module is an Easy (+4 DM) Intelligence-based Engineer (any) or Mechanic check, with no non-proficiency penalty. It normally takes 1–6 hours

but is often drawn out by another 1–6 hours to ensure success. The central module can be accessed from the control cabin at the front of the craft. The rear engineering section on the modular cutter is notoriously cramped and unpleasant, especially when a fuel module is installed. This is a standard design for which the 10% discount applies (see Core Rule Book page 114).

Modular Cutter			Tons	Price (Mcr)
Hull	50 Tons	Hull 1		1.65
	Streamlined	Structure 1		
Armour	None			
Manoeuvre Drive	sK	Thrust 4	5	11
Power Plant	sK	Rating 4	3.9	7.5
Bridge	Control cabin for 2		6	0.25
Computer	Model/1	Rating 5		0.03
Electronics	Standard	DM-4		
Weapons	None			
Fuel	1 ton	One week of operation	1	
Cargo	3.1 tons		3.1	
Extras	Airlock		1	0.2
	30 ton module		30	0.99
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost (excludes module)			50	19.458

Exploration Module

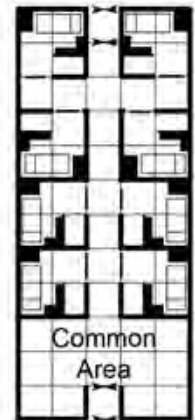
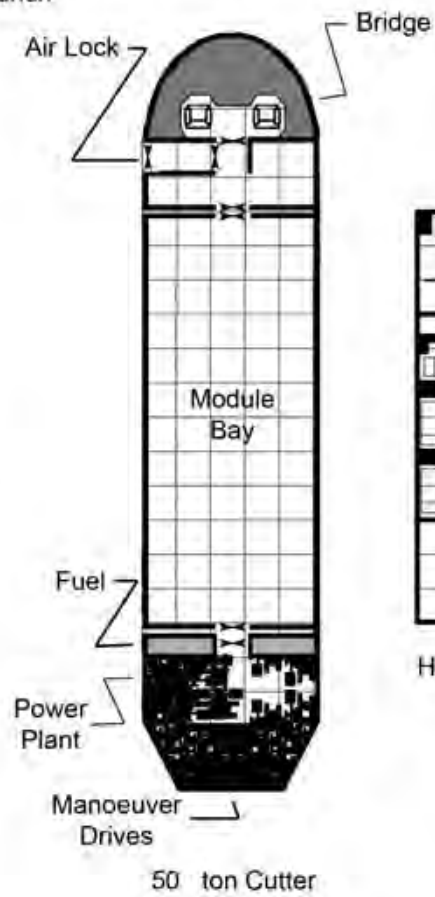
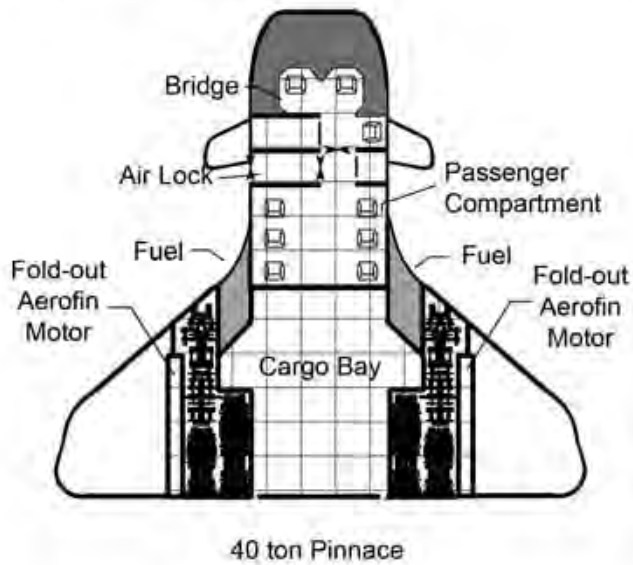
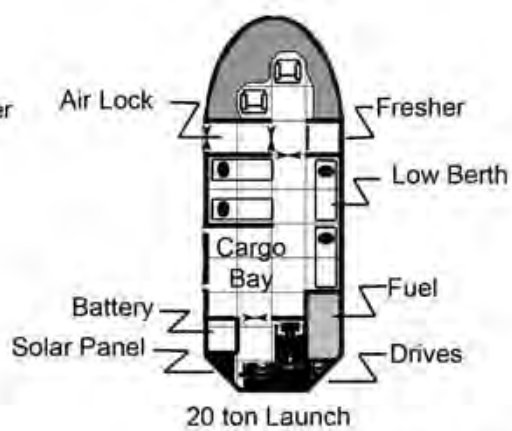
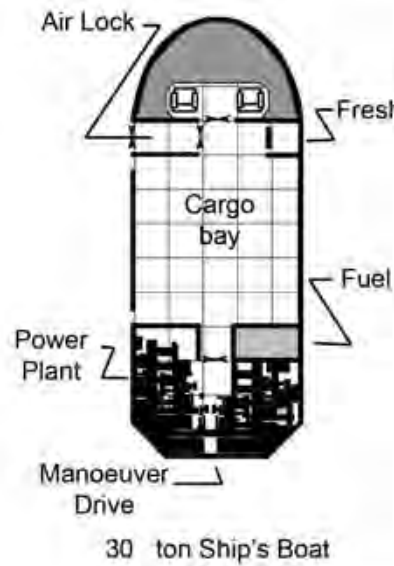
An exploration module contains an air/raft or other small vehicle, as well as portable shelters and survival equipment sufficient to supply an exploration party for three months. It is suitable only for habitable, Earth-like worlds, and costs Mcr 1.2.

Habitat Module

The habitat module is a deployable base station with living quarters for an eight person team. The module is sealed and can be used in hostile environments. It costs Mcr 4.

Fort Module

The fortress module is a heavily armoured bunker that can be deployed by cutter. It has living quarters for eight people, and has several small gun emplacements as well as a roof-mounted fusion turret. Fortress modules cost MCr 8.



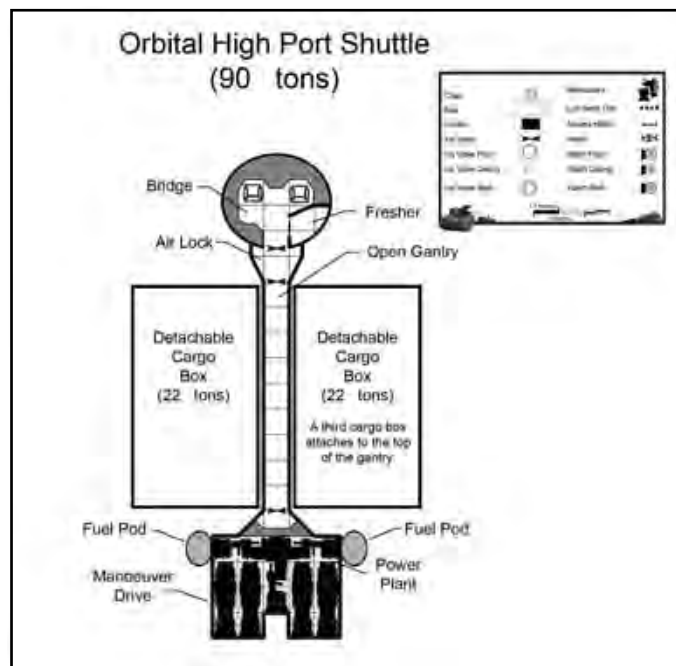
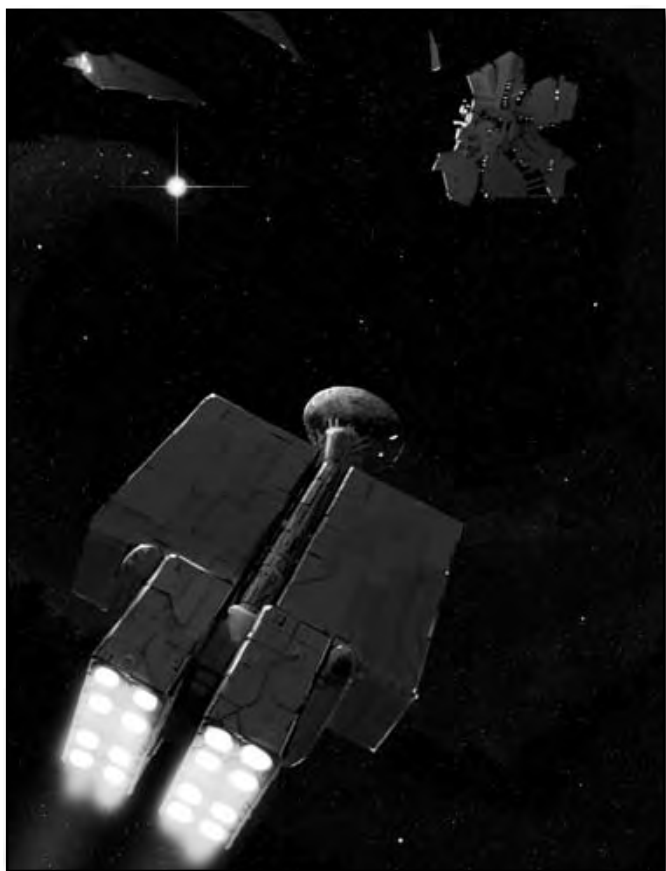
Habitat Module Example

Shuttle

The standard surface-to-orbit shuttle is not streamlined, but carries extendible aerofins for atmospheric manoeuvring. Most starports have a fleet of cargo shuttles for servicing orbiting trade vessels. This is a standard design for which the 10% discount applies (see page

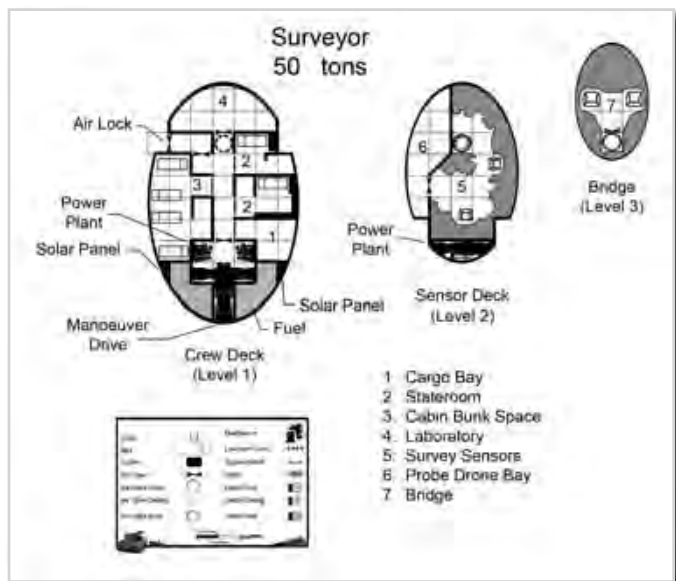
114 of the Traveller main rulebook). Worlds with orbital Highports (see page 178 of the Traveller main rulebook) use distributed-hull shuttles with considerably more cargo space. These ugly craft are little more than open frameworks with a small cockpit at one end and engines at the other.

Shuttle			Tons	Price (MCr)
Hull	90 Tons	Hull 1		1.9
		Structure 1		
	Aerofins		4.5	0.45
	Heat Shielding			9
Armour	None			
Manoeuvre Drive	sL	Thrust 3	6	12
Power Plant	sL	Rating 3	4.5	8
Bridge	Control cabin for 2		6	0.45
Computer	Model/1	Rating 5		0.03
Electronics	Standard	DM-4		
Weapons	None			
Fuel	1 ton	One week of operation	1	
Cargo	67 tons		67	
Extras	Airlock		1	0.2
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			90	28.827



Surveyor

The planetary surveyor is a long-endurance small craft designed for exploring planetary systems. It carries a full suite of probe drones and an advanced sensors suite, requiring the presence of an extra crew member as a sensor operator. As survey missions often take place over several weeks, the craft has a pair of staterooms for the crew, and most surveyors carry six or nine crew members working in shifts. The air in a surveyor often qualifies as a low-level biohazard.



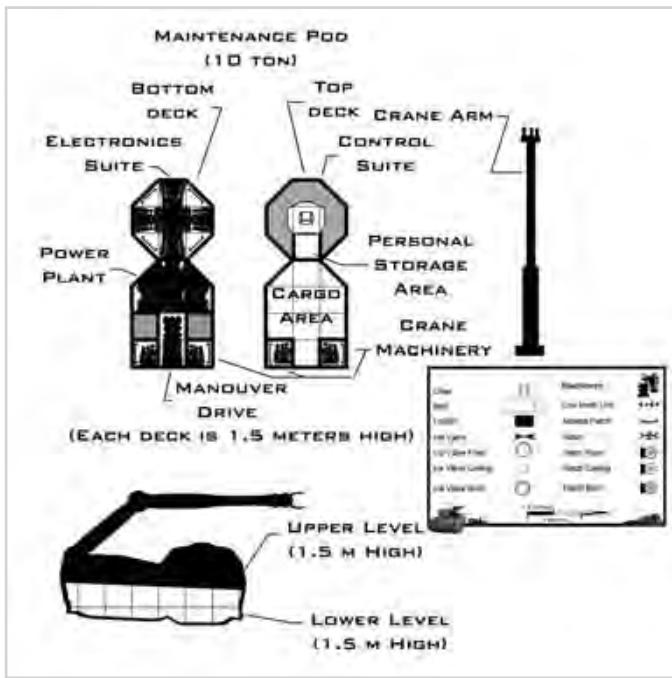
Surveyor			Tons	Price (MCr)
Hull	50 Tons	Hull 1		1.65
	Streamlined	Structure 1		
	Radiation shielding			12.5
Armour	None			
Manoeuvre Drive	sE	Thrust 2	2.5	4
Power Plant	sE	Rating 2	2.4	5
	Solar Panels		0.24	0.024
Bridge	Control cabin for 2		6	0.2
Computer	Model/3	Rating 15		2
Electronics	Survey Sensors	DM+1	10	10
	Improved Signal Processing		1	4
Weapons	None			
Fuel	3 tons	4 weeks of operation	3	
Cargo	1.86 tons		1.86	
2 Staterooms			8	1
Extras	Air Lock		1	0.2
	20 Probe Drones		4	2
	Laboratory		4	1
	Cabin space for 4		6	0.3
Software	Manoeuvre/o			
	Intellect			1
	Library/o			
Total Tonnage & Cost			50	44.874

Maintenance Pod

Ten-ton maintenance pods are used for repairing larger craft, especially when the damage is too serious to be handled by the smaller crab-like repair drones. The one-man maintenance pod

has a tiny cockpit and small manoeuvring thrusters to make space for the grappling arm and cargo bay. This is a standard design for which the 10% discount applies (see page 114 of the Traveller main rulebook).

Maintenance Pod			Tons	Price (MCr)
Hull	10 Tons	Hull 0		1
		Structure 1		
Armour	None			
Manoeuvre Drive	sA	Thrust 2	0.5	1
Power Plant	sA	Rating 2	1.2	3
Bridge	Cockpit for 1		1.5	0.05
Computer	Model/o	Rating 5		0.03
Electronics	Basic Civilian	DM-2	1	0.05
Weapons	None			
Fuel	0.5 ton	One week of operation	0.5	
Cargo	3.3 tons		3.3	
Extras	Grappling Arm		2	1
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			10	5.517

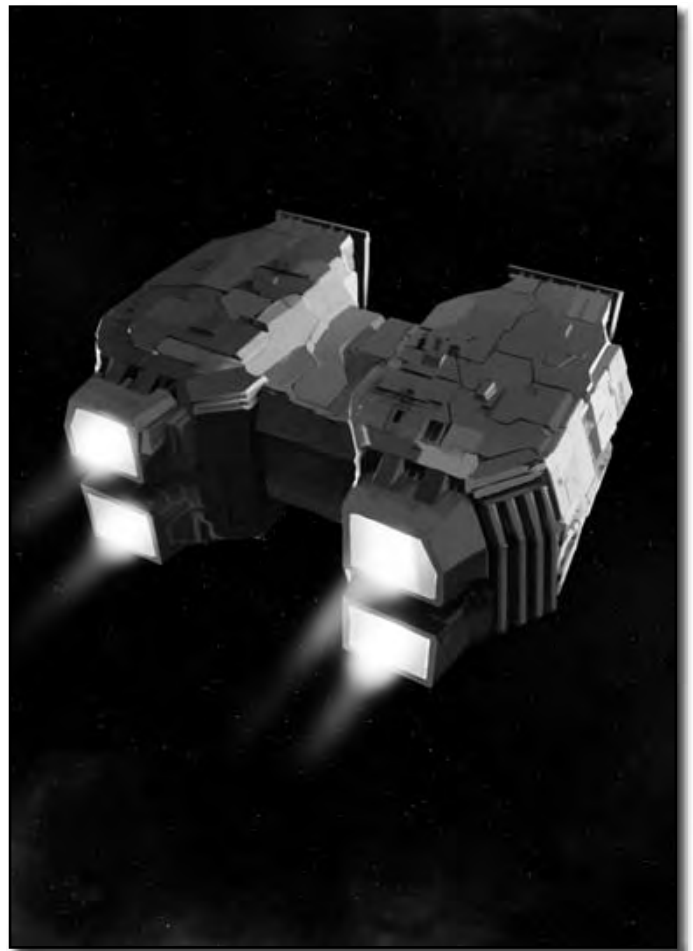
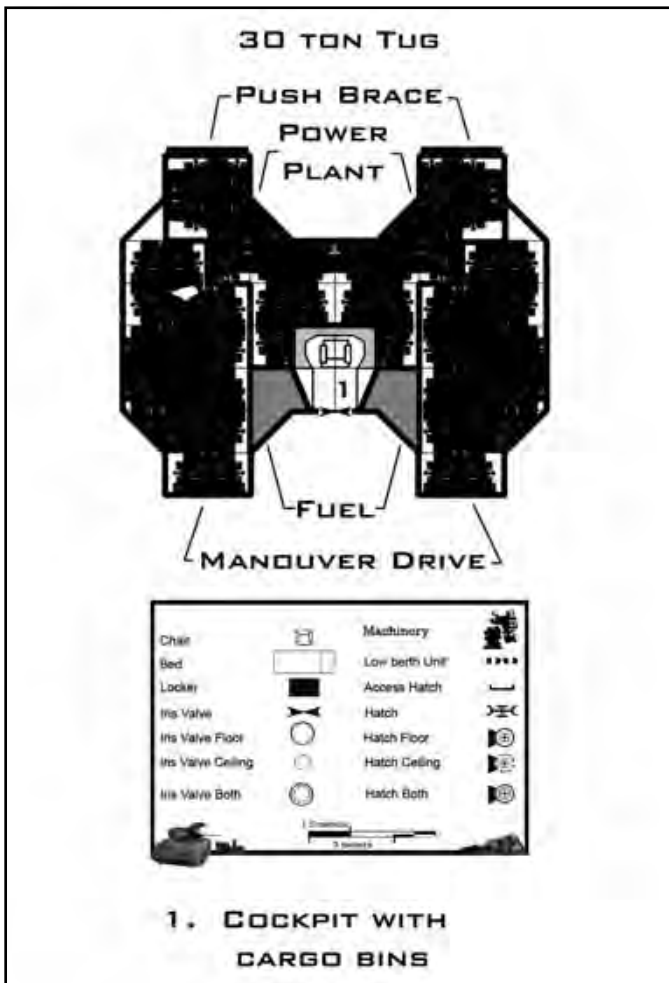


Tug

The thirty-ton tug is an ugly slab of metal, comprised of nothing but drives and control cabin. They are rarely carried by ships, but are a common sight around space stations and HighPorts. Tugs

work by docking with the target vessel (see page 137 of the Traveller main rulebook) and then applying their massive thrust. This is a standard design for which the 10% discount applies (see page 114 of the Traveller main rulebook).

Type			Tons	Price (MCr)
Hull	30 Tons	Hull 0		1.3
	Configuration	Structure 1		
Armour	None			
Manoeuvre Drive	sW	Thrust 14	16	32
Power Plant	sW	Power 14	10.5	26
Bridge	Cockpit for 1		1.5	0.15
Computer	Model/1	Rating 5		0.03
Electronics	Standard	DM-4		
Weapons	None			
Fuel	1.75 ton	One week of operation	1.75	
Cargo	0.25 tons		0.25	
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			30	53.532



MILITARY CRAFT

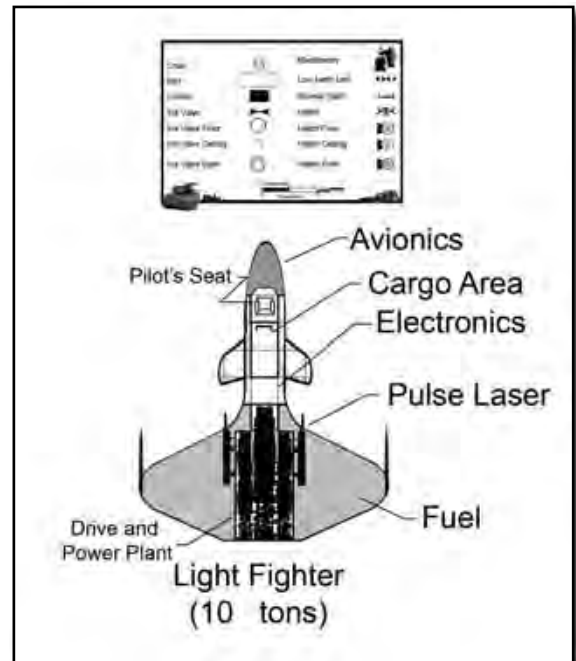
Military small craft fall into two types – armed versions of civilian craft, such as armoured shuttles or boarding craft, and combat craft like fighters and bombers.

Light Fighter

The light fighter is a small fast, highly manoeuvrable ship used for making high-speed attack runs on enemy ships. They consist

mainly of a power plant attached to a laser or other weapon with a pilot sitting on top. Fighters pose aggravating tactical complications for the commander of a vessel under attack by them, but are seldom enough to destroy a larger ship without support. This is a standard design for which the 10% discount applies (see page 114 of the Traveller main rulebook).

Light Fighter			Tons	Price (MCr)
Hull	10 Tons	Hull 0		1.1
	Streamlined	Structure 1		
Armour	Crystaliron	2 points	0.25	0.1
Manoeuvre Drive	sC	Thrust 6	1.5	3
Power Plant	sG	Rating 12	3	6
Bridge	Cockpit for 1		1.5	0.05
Computer	Model/1	Rating 5		0.03
Electronics	Basic Civilian	DM-2	1	0.05
Weapons	Fixed mounting	Pulse laser	1	0.6
Fuel	0.75 ton	One week of operation	0.75	
Cargo	1 ton		1	
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			10	9.837

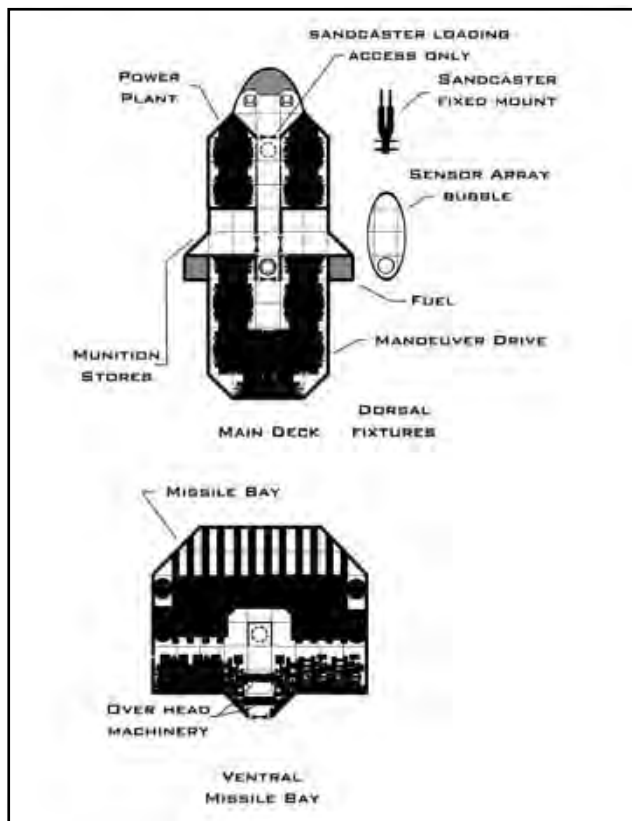


Bomber

The seventy-ton Bomber is little more than a flying missile bay, but is capable of delivering a withering hail of fire for its tonnage. It

has no anti-ship weapons other than its missiles, so it is normally escorted by smaller fighters. It also suffers from a severe lack of ammunition, only 4 salvos, limiting its endurance in battle.

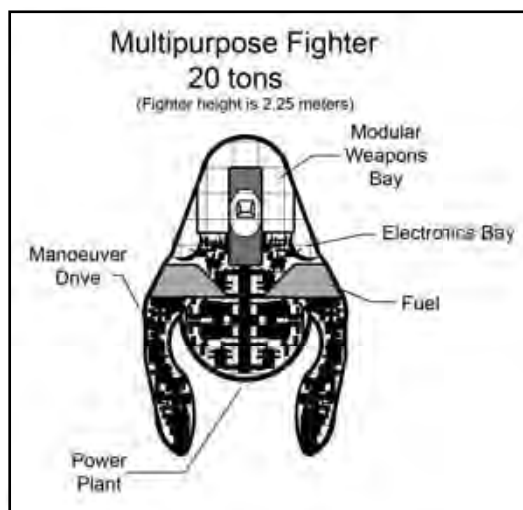
Bomber			Tons	Price (MCr)
Hull	70 Tons	Hull 1		1.7
	Streamlined	Structure 1		0.17
Armour	Crystaliron	4 points	3.5	0.68
Manoeuvre Drive	sU	Thrust 5	14	28
Power Plant	sU	Power 5	9.3	22
Bridge	Cockpit for 2		3	0.35
Computer	Model/4	Rating 20		5
Electronics	Basic Military	DM+0	2	1
Weapons	50-ton Missile Bay-9	(Reduced size)	31	24
	Fixed mount	sandcaster	1	0.35
Ammunition	48 missiles		4	
	10 sandcasters		0.5	
Fuel	1 ton	One week of operation	1	
Software	Manoeuvre/0			
	Library/0			
	Intellect			1
	Evade/1			1
	Fire Control/2			4
Total Tonnage & Cost			69.3	89.25



Multipurpose Fighter

Multi-purpose fighters are twenty-ton combat craft that are jack of all trades and master of none. With nine g's of thrust, they are not as fast as higher-performance interceptors. They have a modular weapon bay that can take a missile launcher and its ammunition, a laser or a particle beam, allowing them, if given sufficient foresight, to be an extremely effective combatant. They have aerofins and twin plasmas weapons which also makes them very effective against vehicles and ground targets.

Versions of the multipurpose fighter armed with pulse lasers, beam lasers and particle beams have a two tons cargo and the version with a sandcaster (and 20 rounds of ammunition) has one ton cargo. These cost MCr 31.76, MCr32.26, MCr 35.26 and MCr31.51 respectively (excluding ammunition)



Multi-Purpose Fighter			Tons	Price (MCr)
Hull	20 Tons	Hull o		1.32
	Streamlined	Structure 1		
	Aerofins		1	0.02
Armour	Crystaliron	7 points	1.75	0.84
Manoeuvre Drive	sJ	Thrust 9	4.5	10
Power Plant	sJ	Rating 9	3.6	7
Bridge	Cockpit for 1		1.5	1
Computer	Model/4	Rating 20		5
Electronics	Advanced	DM+1	3	2
Weapons	3 ton modular bay		3	0.18
	(fixed mount)	(missile)		0.85
	(24 missiles)			
Fuel	1 ton	One week of operation	1	
Software	Manoeuvre/o			
	Library/o			
	Intellect			1
	Evade/1			1
	Fire Control/2			4
Total Tonnage & Cost			19.35	34.21

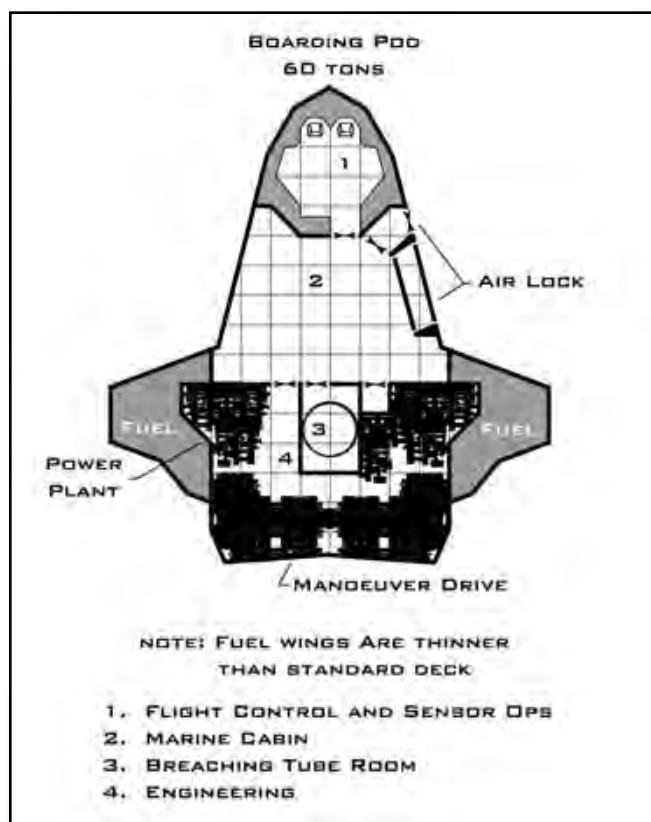


Boarding Craft

The boarding craft is an armoured troop carrier with a high-acceleration engine and belly-mounted boarding tube. It is designed for one purpose – to deliver a squad of battle-dressed marines to an enemy ship as quickly as possible. The sixty-ton craft carries a

turret with a pulse laser and a defensive sandcaster. In emergencies, the boarding tube and surrounding hull can be jettisoned using explosive bolts, allowing the battle-dress troopers to deploy using manoeuvring packs.

Boarding Craft			Tons	Price (MCr)
Hull	60 Tons	Hull 1		1.76
	Streamlined	Structure 1		
	Options			
Armour	Crystaliron	8 points	6	1.28
Manoeuvre Drive	sT	Thrust 6	13	26
Power Plant	sT	Rating 6	8.7	20
Bridge	Cabin for 2		6	0.3
Computer	Model/4	Rating 20		5
Electronics	Basic Military	DM+0	2	1
Weapons	Twin turret	Pulse laser/sand caster	1	1.25
Ammunition		20 sandcaster barrels		
Fuel	0.75 tons	Three days of operation	0.75	
Cargo	0.5 tons		0.5	
Staterooms	Cabin for 12	Squad of Marines	18	0.9
Extras	Breaching Tube		3	3
Software	Manoeuvre/o			
	Library/o			
	Intellect			1
	Evade/1			1
	Fire Control/2			4
Total Tonnage & Cost			58.95	66.49

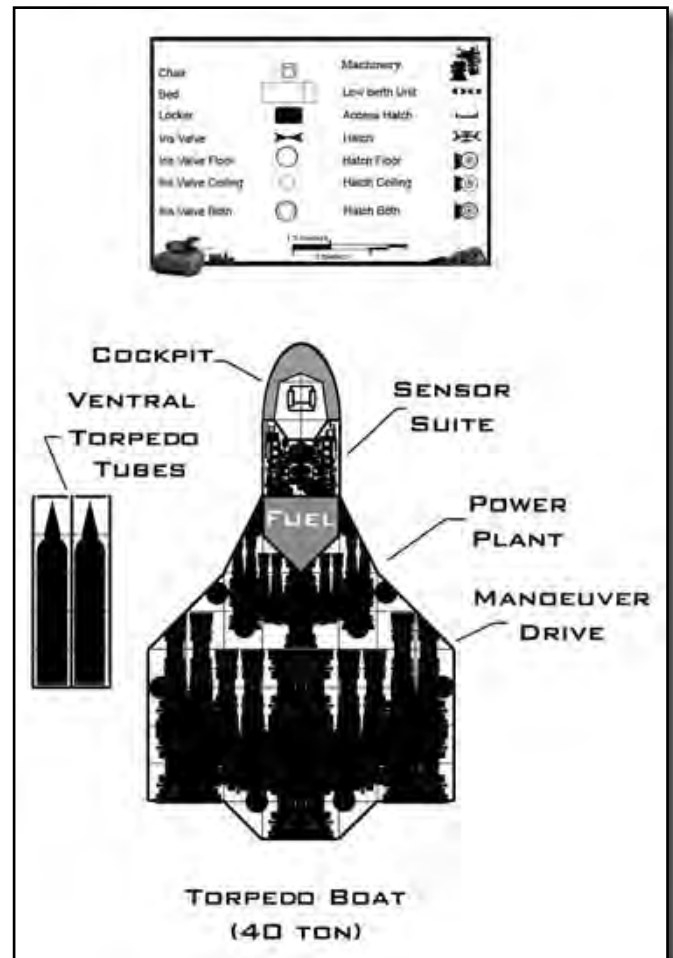


Torpedo Boat

The forty-ton torpedo boat is built to pummel enemy craft into submission. It has two torpedoes, usually a mix of nuclear and bomb-pumped lasers depending on the enemy's defences. A

torpedo boat does not have any active defences and is dependent on escorting fighters whilst waiting for an opening in the fighter screen before darting in at high acceleration and opening fire.

Torpedo Boat			Tons	Price (MCr)
Hull	40 Tons	Hull 1		1.54
	Streamlined	Structure 1		
Armour	Crystaliron	10	5	1.4
Manoeuvre Drive	sV	Thrust 10	15	30
Power Plant	sV	Rating 10	9.9	24
Bridge	Cockpit for 1		1.5	0.2
Computer	Model/4	Rating 20		5
Electronics	Basic Military	DM+0	2	1
Weapons	2 Torpedoes		5	
Fuel	1.5 tons	One week of operation	1.5	
Software	Manoeuvre/o			
	Library/o			
	Intellect			1
	Evade/1			1
	Fire Control/2			4
Total Tonnage & Cost			39.9	69.14



ANTIQUE SMALL CRAFT

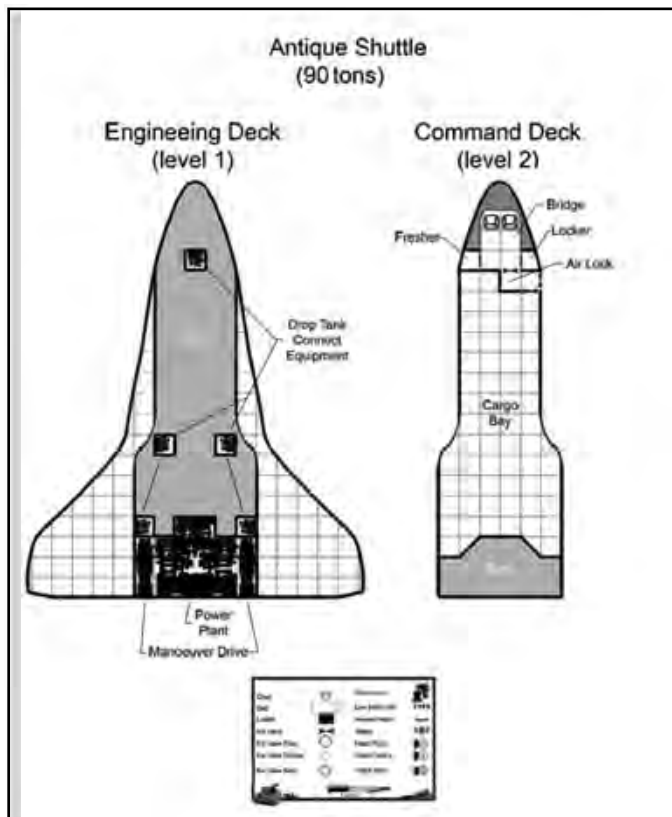
These small craft use chemical power plants and reaction drives. They are encountered in low-technology systems, or are genuine antiques maintained from earlier periods of the Imperium.

Antique Shuttle (TL 7)

Often, the systems using these shuttles cannot build jump engines, so bringing satellites and station parts to orbit is the primary purpose of these squat cylindrical shuttles. External drop tanks are used to carry the bulk of the shuttle's fuel.

Antique Shuttle			Tons	Price (MCr)
Hull	90 Tons	Hull 1		1.9
	Streamlined	Structure 1		0.19
	Heat Shielding			9
Armour	None			
Manoeuvre Drive	Rocket sL	Thrust 3	2.75	5.5
Power Plant	Chemical sL	Rating 3	7	3.5
Bridge	Cabin for 2		6	0.45
Computer	Model/1	Rating 5		0.03
Electronics	Standard	DM-4		
Weapons	None			
Fuel	40 tons	1 week of operations and 6 G hours of thrust	40	
Cargo	31.71 tons		31.71	
Extras	64 ton Drop Tank		2.54	0.127
	1 week of operations and 9.4 G hours of thrust (at 154 tons)			
Software	Manoeuvre/o			
	Library/o			
Total Tonnage & Cost			90	20.697

With Drop tank attached (154 tons) the antique shuttle can only achieve 1.71Gs



CAPITAL SHIPS

The term 'capital ship' is something of a misnomer – it should be used only to describe those vessels that are so large and powerful that they are the centre of a whole squadron, such as battleships and dreadnoughts. However, small-ship pilots tend to apply the phrase to any gargantuan super-ship massing tens of thousands of tons. Most capital ships are in the hands of governments or megacorporations – for a private individual to own such a ship is almost unthinkable, although there are a few wealthy nobles or supremely successful mercenary commanders with personal warships.

BATTLESHIP

The power of the Imperial Navy is concentrated in its battleships. The definition of a battleship is a ship which, due to its armament and protection, is capable of standing in the line of battle. When a battleship meets any lesser type of ship, its victory is almost guaranteed. When battleships on two sides meet, victory goes to the better armed, better armoured and better directed ship.

Considered part of the battle line, battle riders and battle tenders are the latest development in warship technology. The battle rider is a combat craft without a jump engine, typically about 30,000-tons

but it can be much larger or smaller; the tender is a much larger but lightly armed ship with enough cargo capacity to hold one or more battle riders. The tender jumps into the disputed system and deploys its riders. Without the need to allocate a considerable percentage of its tonnage to jump fuel, the rider is capable of engaging and destroying much larger vessels, but it is vulnerable if fighting against overwhelming forces and being unable to retreat.

Sylea class Battleship

The *Sylea* class represents a modern battleship of the Imperial Navy, with the largest possible meson spinal mount, the heaviest protection available and large secondary and tertiary batteries. Whilst it does not have the strategic deployability of the more specialised *Plankwell* class, the *Sylea* class is fully capable of fulfilling all the key tactical and strategic roles required, including the provision of flag facilities.

It lacks the very large troop capacity (A *Sylea* class 'only' carries a marine battalion) and fighter screen of older battleships and dreadnoughts such as the *Tigress* class, but recent Imperial doctrine is for more specialist vessels with troops carried on troop transports, fighters on carriers with smaller more cost-effective battleships for duties in the line of battle.

			Tons	Price (MCr)
Hull	200,000	Standard TL14 hull		20,000
	5 sections each	Hull 1000 Structure 1000		
Armour	Bonded Superdense	15 points	25,000	25,000
Jump Drive	Jump 3		8,000	16,000
Manoeuvre Drive	Thrust 6–11		5,850	3,656.25
Power Plant	Rating 6–15		7,500	18,750
Bridge			5,000	5,000
	Command Bridge		400	7,500
	Holographic controls			3,125
Computer	Core/9fibx4	Rating 100 (hardened v EMP)		780
Electronics	Military Counter Measures x4	Enhanced Signal Processing and Distributed Arrays	264	396
Weapons	Spinal Mount	Type D–15	540 damage, Penetration rating V	8,400
	Bays	50 x Large Meson Gun–15	Accurate, High Yield	5,050
		200 x Torpedo–12		6,200
	Turrets	206 x Triple Particle Beam–11	Accurate, High Yield	206
		600 x Triple Beam Laser–10	Accurate, High Yield	600
		300 x Triple Missile		300
		560 x Triple Sandcaster		560
	Screens	Level 6 Nuclear Damper–14		225
		Level 6 Meson Screen–14		360
				750

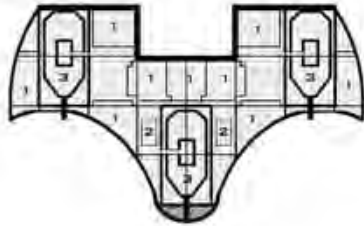
CAPITAL SHIPS

Fuel	70,000 tons	One Jump-3 and one Jump-1, four weeks of operation	70,000	
Cargo	Ammunition	12,000 torpedoes	30,000	
		32,400 missiles	2,700	
		60,480 barrels	3,024	
	Cargo	5,398.4 tons	5,398.4	
1,468 Staterooms			5,872	734
1,307 Low Berths			653.5	65.35
Extras	Armoured bulkheads for Drives		2,185	437
	Bridges		540	108
	Spinal Mount		840	168
	Bays		1,125	225
	Turrets		166.6	33.32
	Screens		58.5	11.7
	Fuel Scoops			1
	Fuel Processor	All fuel in 2 days	1,750	87.5
	Luxuries		50	5
	Probe Drones (10)		2	1
	5 Briefing Rooms		20	2.5
	93 Armouries		186	46.5
Craft	4 Modular Cutters	Full scale hangars	260	52
	4 Pinnaces	Full scale hangars	312	62.4
	4 Boarding Craft	Full scale hangars	208	41.6
	1,468 Escape Pods		734	146.8
Software	Jump Control/3			—
	Manoeuvre/o			—
	Library			—
	Intellect			4
	Evade/3			12
	Fire Control/5			40
	Auto Repair/2			40
Maintenance Cost (monthly)				11.5198
Life Support Cost (monthly)				3.0667
Total Tonnage & Cost			200,000	138,236.92

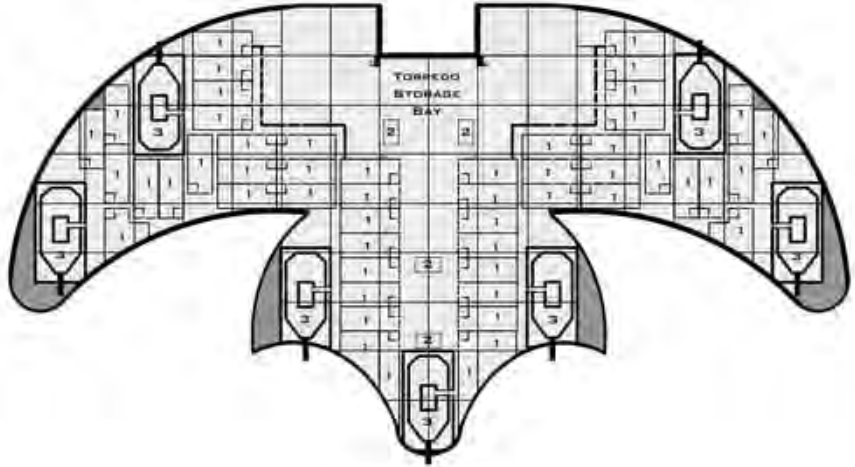
Department	Crew	Crew Damage Track
Command	121	Dead (—)
Engineering	265	Survivors (—4)
Gunnery	1,208	Skeleton (—2)
Flight	36	Half (—1)
Troops	500	Weakened
Service	484	Full
Frozen Watch	1,307	Battle
Total	3,921	Overstrength – starting position
Passenger Staterooms	100	Massively Overstrength
Low Berth Passengers	0	



	Engineering		Aft		Amidships		Main		Forward	
Hull	1,000		1,000		1,000		1,000		1,000	
Structure	1,000		1,000		1,000		1,000		1,000	
Roll	Internal	External	Internal	External	Internal	External	Internal	External	Internal	External
2	Hull	Crew	Hull	Crew	Hull	Crew	Hull	Crew	Hull	Crew
3	17x Meson Gun Bay	Jump Drive	Nuclear Damper	52x Particle Beam Turrets	Meson Screen	75x Beam Laser Turrets	Flag Bridge	75x Beam Laser Turrets	Bridge	51x Particle Beam Turrets
4	Manoeuvre Drive	Power Plant	Spinal Mount	75x Beam Laser Turrets	Spinal Mount	75 x Missile Turrets	Spinal Mount	Computer	Spinal Mount	Sensors
5	Fuel	70x Sandcaster Turrets	Fuel	56x Sandcaster Turrets	16x Torpedo Bay	63x Sandcaster Turrets	16x Torpedo Bay	63x Sandcaster Turrets	16x Meson Gun Bay	75x Beam Laser Turrets
6	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold	Armour	Hold	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure
9	Fuel	70x Sandcaster Turrets	Fuel	63x Sandcaster Turrets	16x Torpedo Bay	63x Sandcaster Turrets	16x Torpedo Bay	63x Sandcaster Turrets	17x Torpedo Bay	75x Beam Laser Turrets
10	Manoeuvre Drive	Jump Drive	17x Torpedo Bay	75x Beam Laser Turrets	Hangar	75x Beam Laser Turrets	17x Torpedo Bay	75 x Missile Turrets	17x Torpedo Bay	75 x Missile Turrets
11	17x Meson Gun Bay	Power Plant	17x Torpedo Bay	75 x Missile Turrets	17x Torpedo Bay	52x Particle Beam Turrets	17x Torpedo Bay	75x Beam Laser Turrets	17x Torpedo Bay	63x Sandcaster Turrets
12	Hull	Critical	Hull	Critical	Hull	Critical	Hull	Critical	Hull	Critical

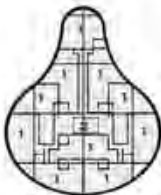


VENTRAL AFT
TORPEDO AND
MESON GUN DECK

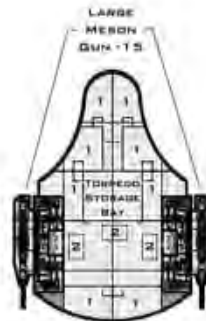


VENTRAL AFT TORPEDO
AND MESON GUN DECK
(DECK 2)

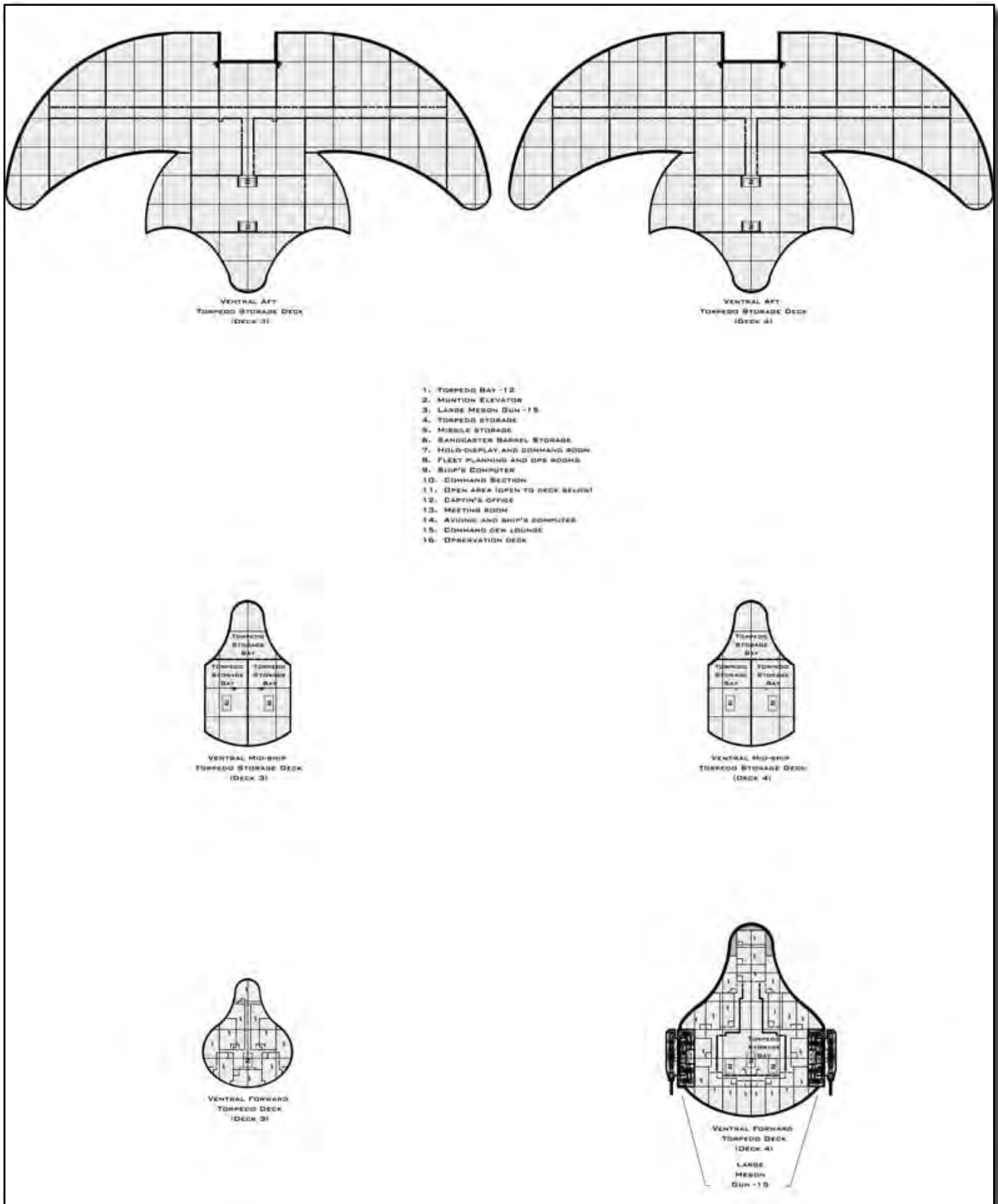
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2. MUNITION ELEVATOR
3. LARGE MESON GUN - 15
4. TORPEDO STORAGE
5. MISSILE STORAGE
6. SANDCASTER BARREL STORAGE
7. HOLD-DISPLAY AND COMMAND ROOM
8. FLEET PLANNING AND OPS ROOMS
9. SHIP'S COMPUTER
10. COMMAND SECTION
11. OPEN AREA (OPEN TO DECK BELOW)
12. CAPTAIN'S OFFICE
13. MEETING ROOM
14. AVIONIC AND SHIP'S COMPUTER
15. COMMAND DEW LOUNGE
16. OBSERVATION DECK

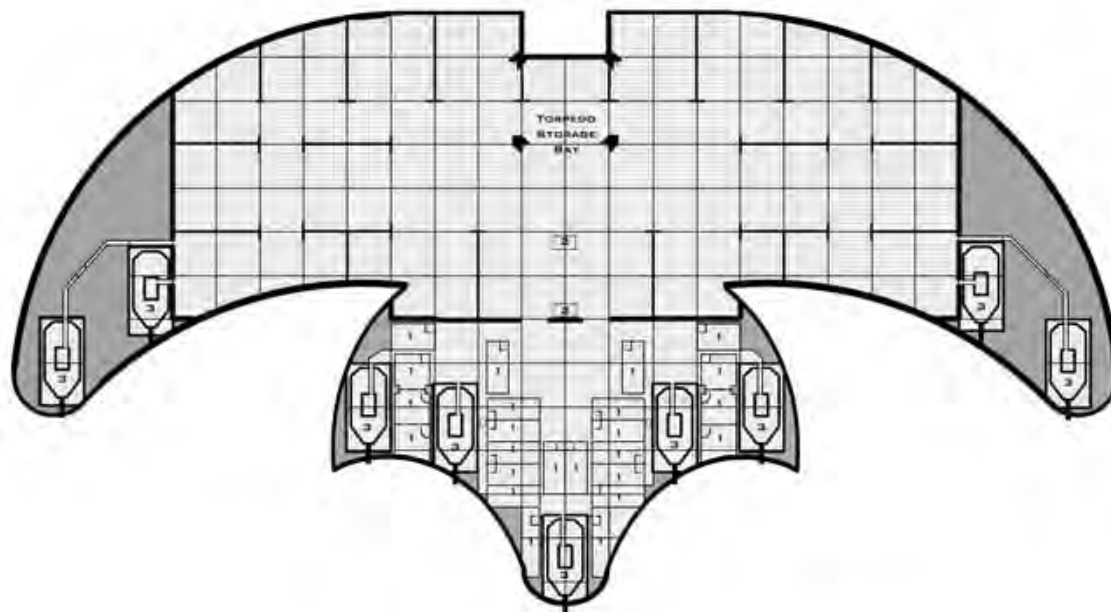


VENTRAL MID-SHIP
TORPEDO DECK



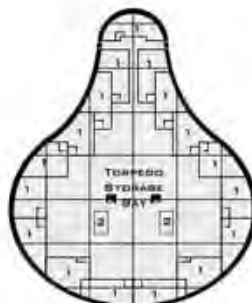
VENTRAL MID-SHIP TORPEDO
AND MESON GUN DECK
(DECK 2)



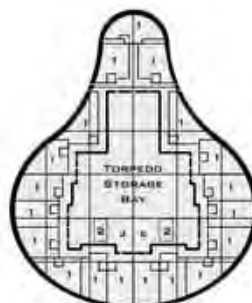


ART TORPEDO AND
MERON GUN -15
DECK
(DECK S1)

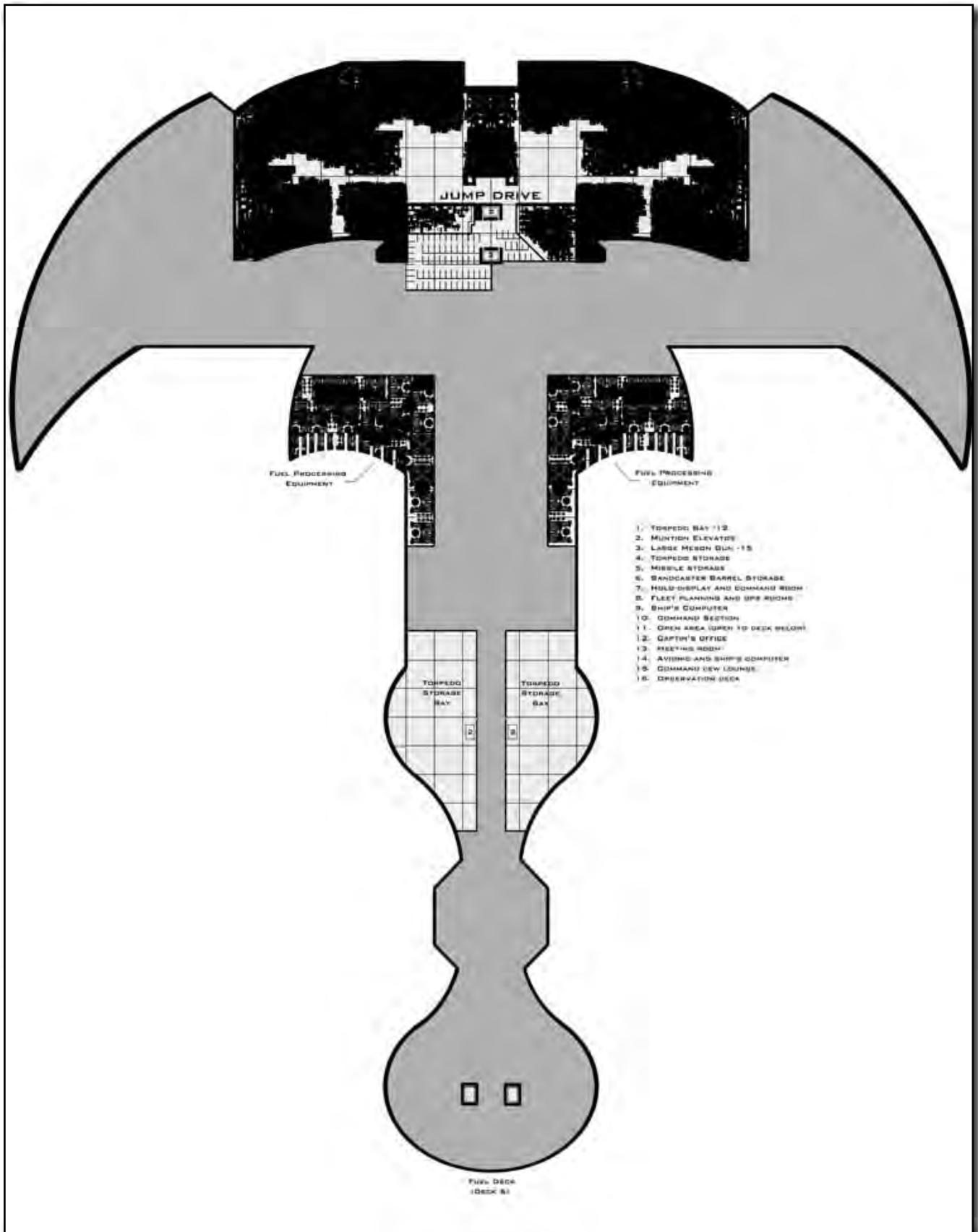
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2. MUNITION ELEVATOR
3. LARGE MERON GUN -15
4. TORPEDO STORAGE
5. MISSILE STORAGE
6. BANGCARTER BARREL STORAGE
7. HOLD-DISPLAY AND COMMAND ROOM
8. FLEET PLANNING AND OPS ROOMS
9. SHIP'S COMPUTER
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12. CAPTAIN'S OFFICE
13. MEETING ROOM
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15. COMMAND DEW LOUNGE
16. OBSERVATION DECK

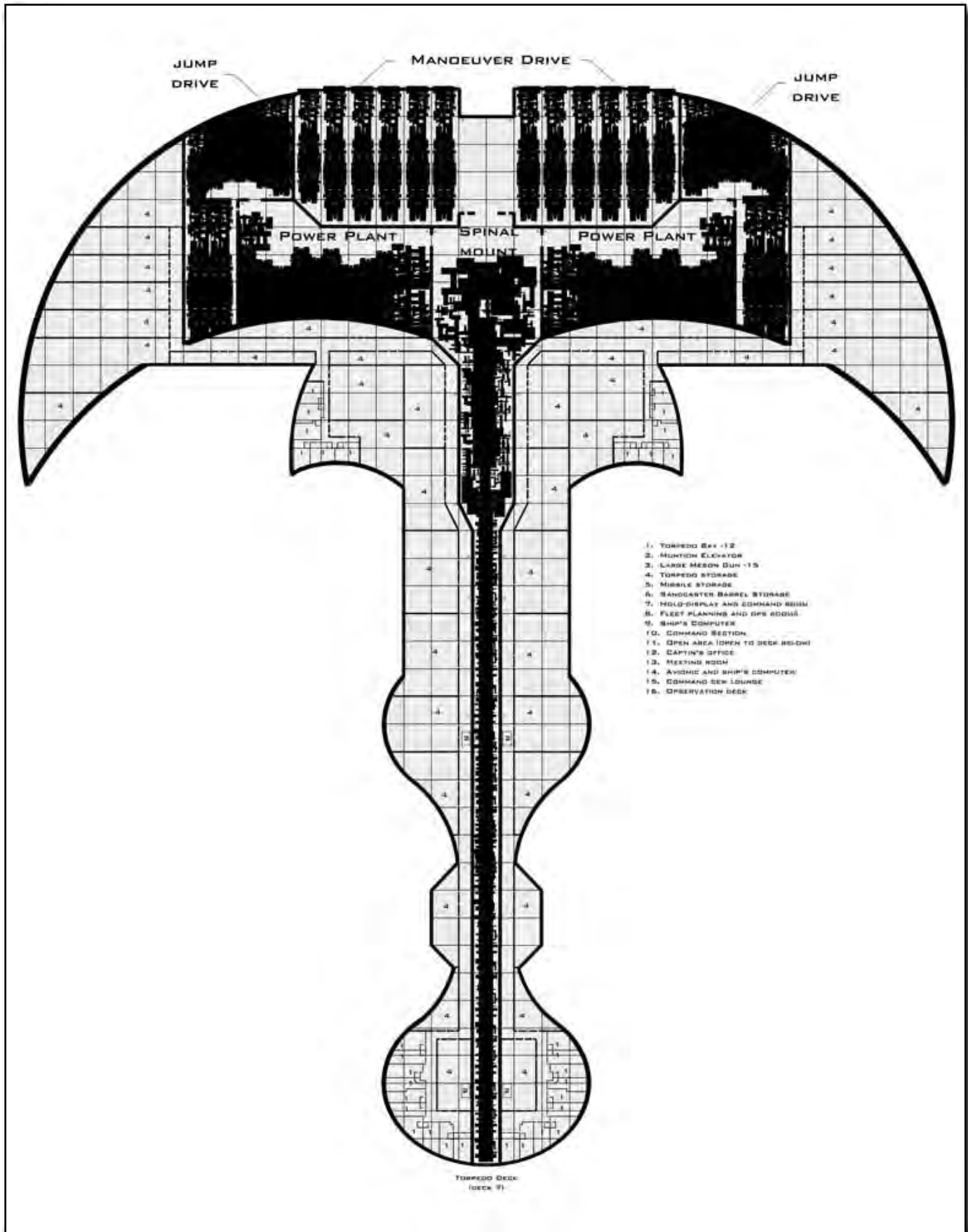


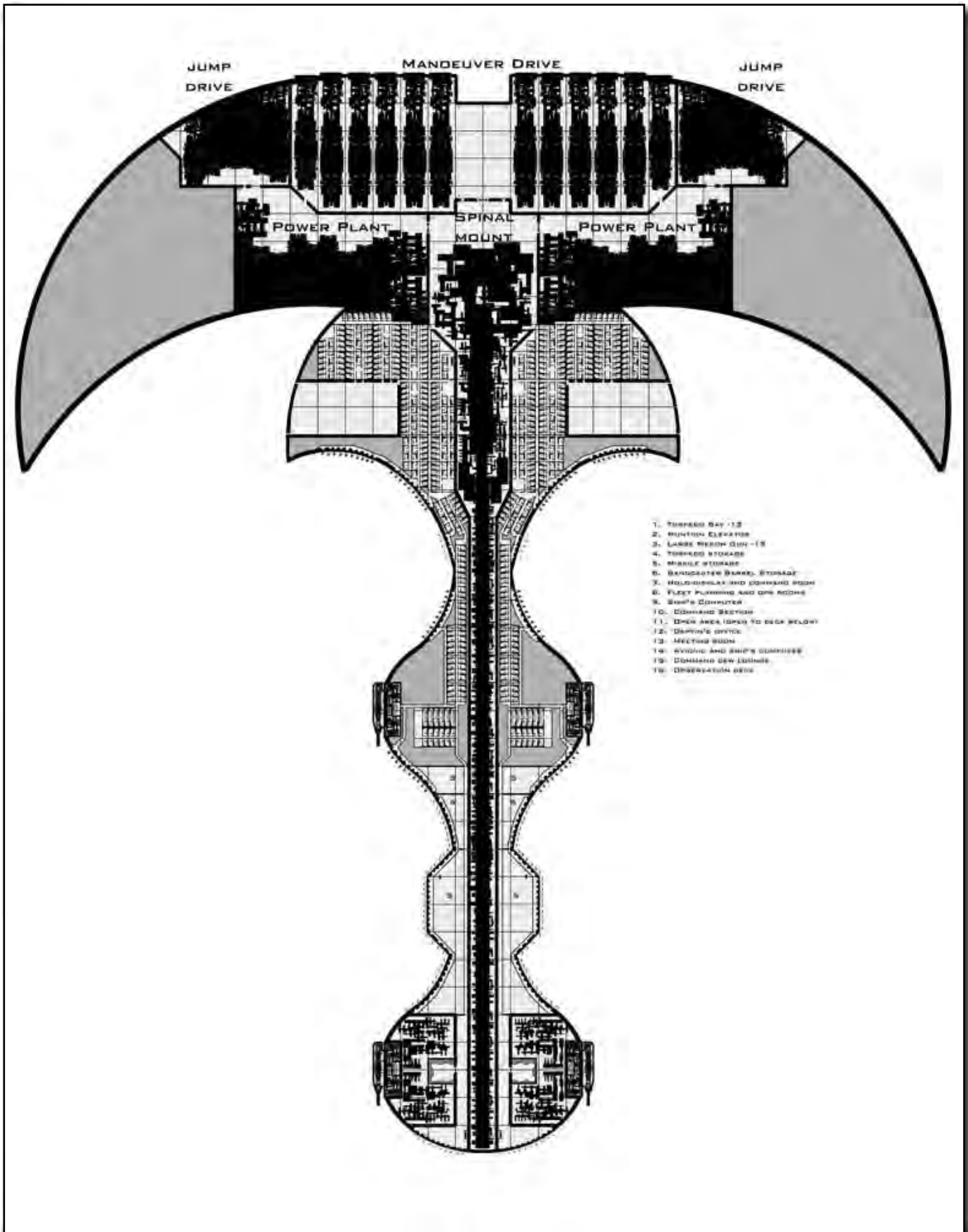
MID-SHIP TORPEDO DECK
(DECK S1)

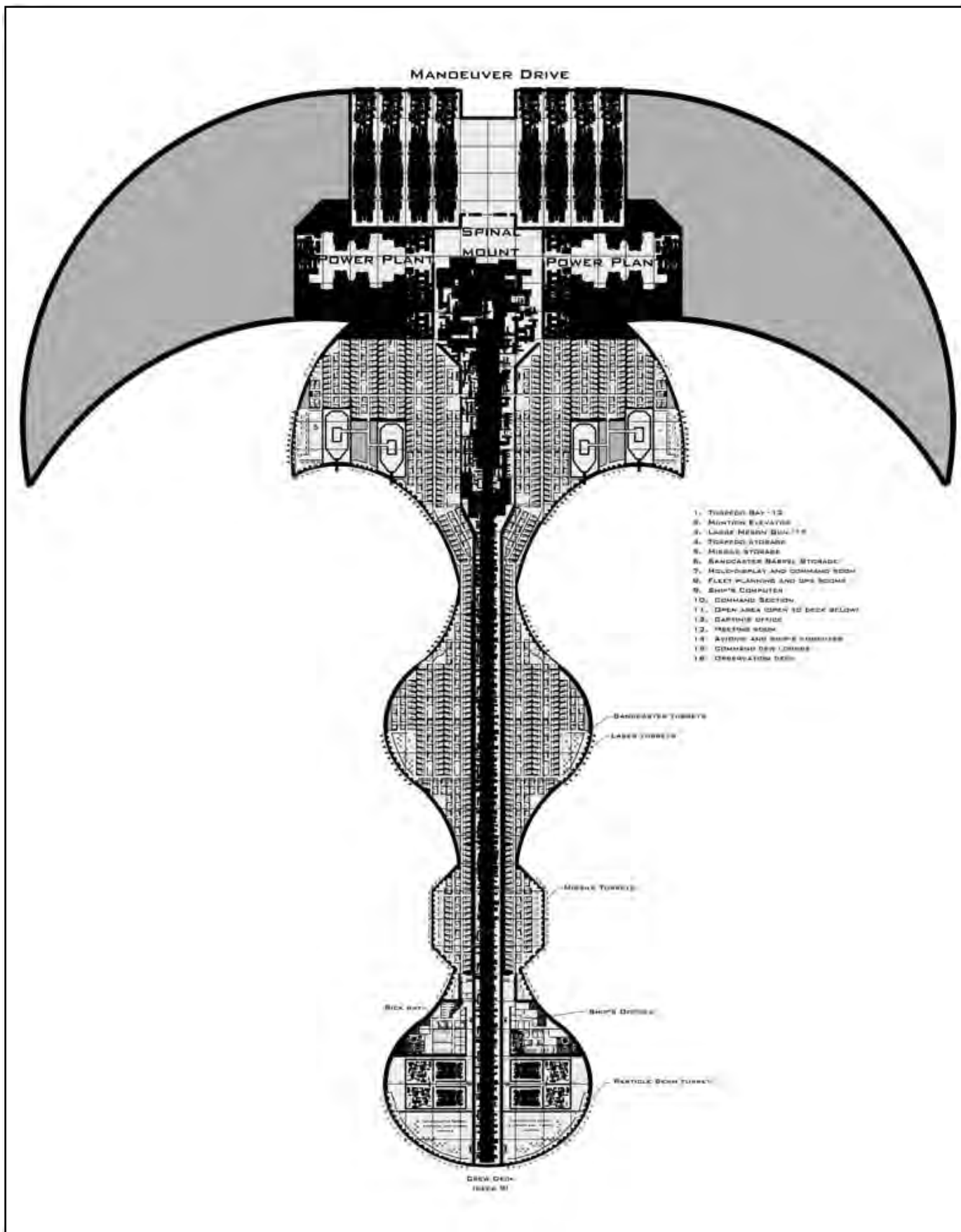


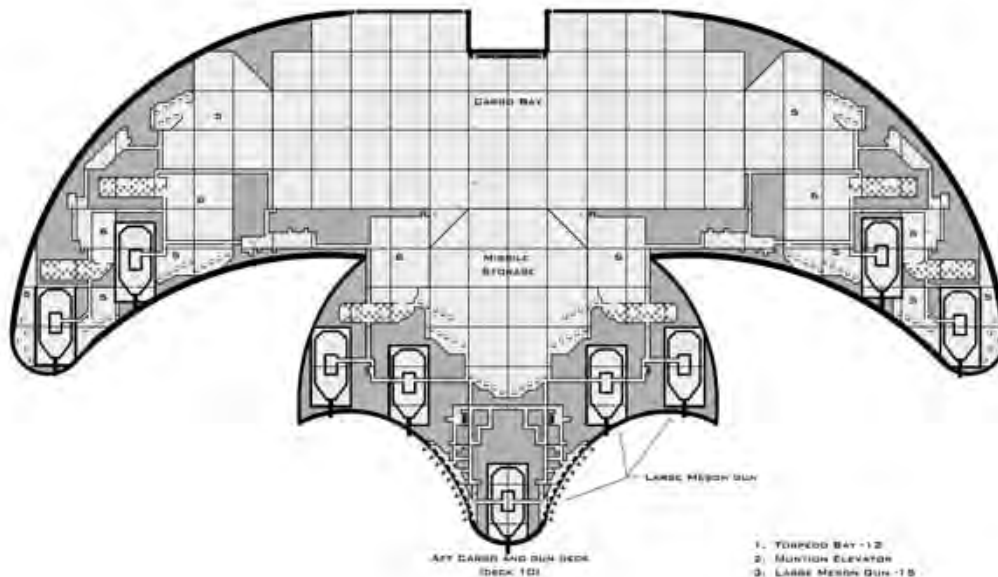
FORWARD TORPEDO DECK
(DECK S1)



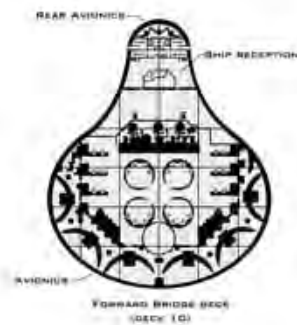
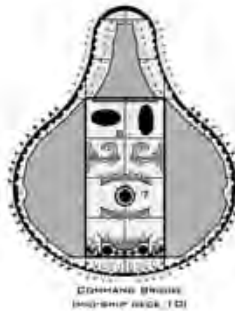


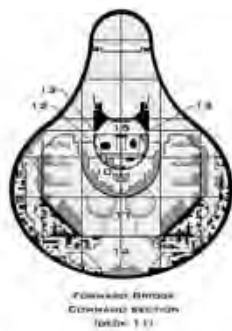
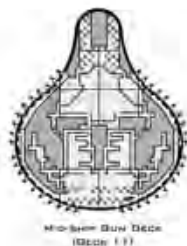
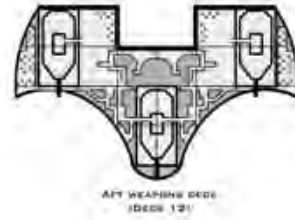
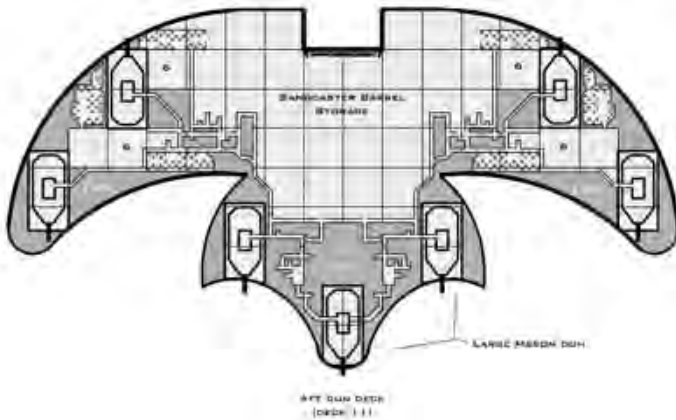






1. TORPEDO BAY - 12
2. MUNITION ELEVATOR
3. LARGE MESSON GUN - 15
4. TORPEDO STORAGE
5. MISSILE STORAGE
6. BANGCARTER BARREL STORAGE
7. HOLD-DISPLAY AND COMMAND ROOM
8. FLEET PLANNING AND OPS ROOMS
9. SHIP'S COMPUTER
10. COMMAND SECTION
11. OPEN AREA (OPEN TO DECK BELOW)
12. CAPTAIN'S OFFICE
13. MEETING ROOM
14. AVENUE AND SHIP'S COMPUTER
15. COMMAND DEW LOUNGE
16. OBSERVATION DECK





1. TURNING BAY (12)
2. HUNTER ELEVATOR
3. LARGE MESS HALL (10)
4. TORPEDO STORAGE
5. MISSILE STORAGE
6. SANDCASTER BARREL STORAGE
7. HOLD-DISPLAY AND COMMAND ROOM
8. FLEET WARNING AND OPS ROOMS
9. SHIP'S COMPUTER
10. COMMAND SECTION
11. OPEN AREA (OPEN TO DECK BELOW)
12. CAPTAIN'S OFFICE
13. MEETING ROOM
14. AVIONIC AND SHIP'S COMPUTER
15. COMMAND DEB LOUNGE
16. OBSERVATION DECK

PLANETOID MONITOR

Planetary defence forces do not always require jump capable vessels and employ non-jump capable vessels known as monitors. These can be little different from the Imperial Navy's battleriders, but many navies protecting systems with asteroid belts can build highly effective combat units, at a much cheaper cost, using planetoids for their hulls. Each such monitor is almost inevitably unique, but this one is representative.

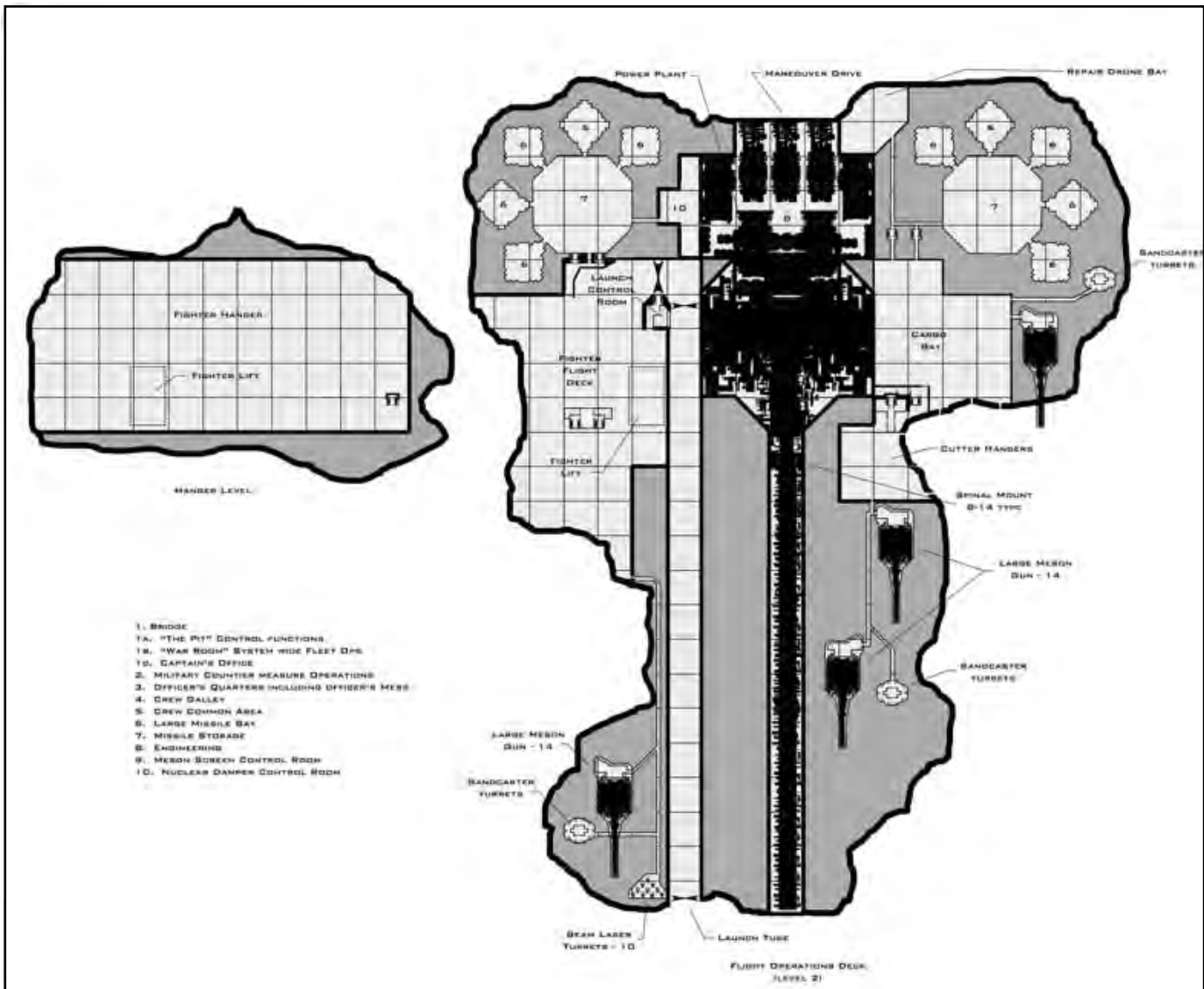
Type			Tons	Price (MCr)
	30,000	Buffered Planetoid		120
	3 sections each	Hull 200 Structure 200		
Armour	Crystaliron	12 pts	4,500	1,620
	Integral	+4pts = 16pts		
Jump Drive	None			
Manoeuvre Drive	Thrust 6		975	487.5
Power Plant	Rating 6		1,125	2812.5
Bridge			450	450
	Holographic controls			112.5
Computer	Core/7fibx2	Rating 8o (hardened v EMP)		210
Electronics	Military Counter Measures x2	Enhanced Signal Processing and Distributed Arrays	132	198
Weapons	Spinal Mount	Type B-14	325 damage, Pen Rating III	3,200
	Bays	10 x Large Meson Gun-14	Accurate	1,010
		50 x Large Missile-9		3,050
	Turrets	28 x Triple Particle Beam-11	Accurate, High Yield	28
		100 x Triple Beam Laser-10	Accurate, High Yield	100
		80 x Triple Sandcaster		80
	Screens	Level 4 Nuclear Damper		120
		Level 4 Meson Screen		240
Fuel	1,500 tons	Four weeks of operation	1,500	
Cargo	Ammunition	43,200 missiles	3,600	
		8,640 barrels	432	
	Cargo	729.2 tons	729.2	
411 Staterooms			1,644	205.5
Extras	Armoured Bulkheads for	Drives	210	42
		Bridge	45	9
		Spinal Mount	320	64
		Bays	406	81.2
		Turrets	20.8	4.16
		Screens	36	7.2
	Repair Drones		300	60
	8 Briefing Rooms		32	4
	Fuel Processor	All fuel in 2 days	37.5	1.875
	26 Armouries		52	13

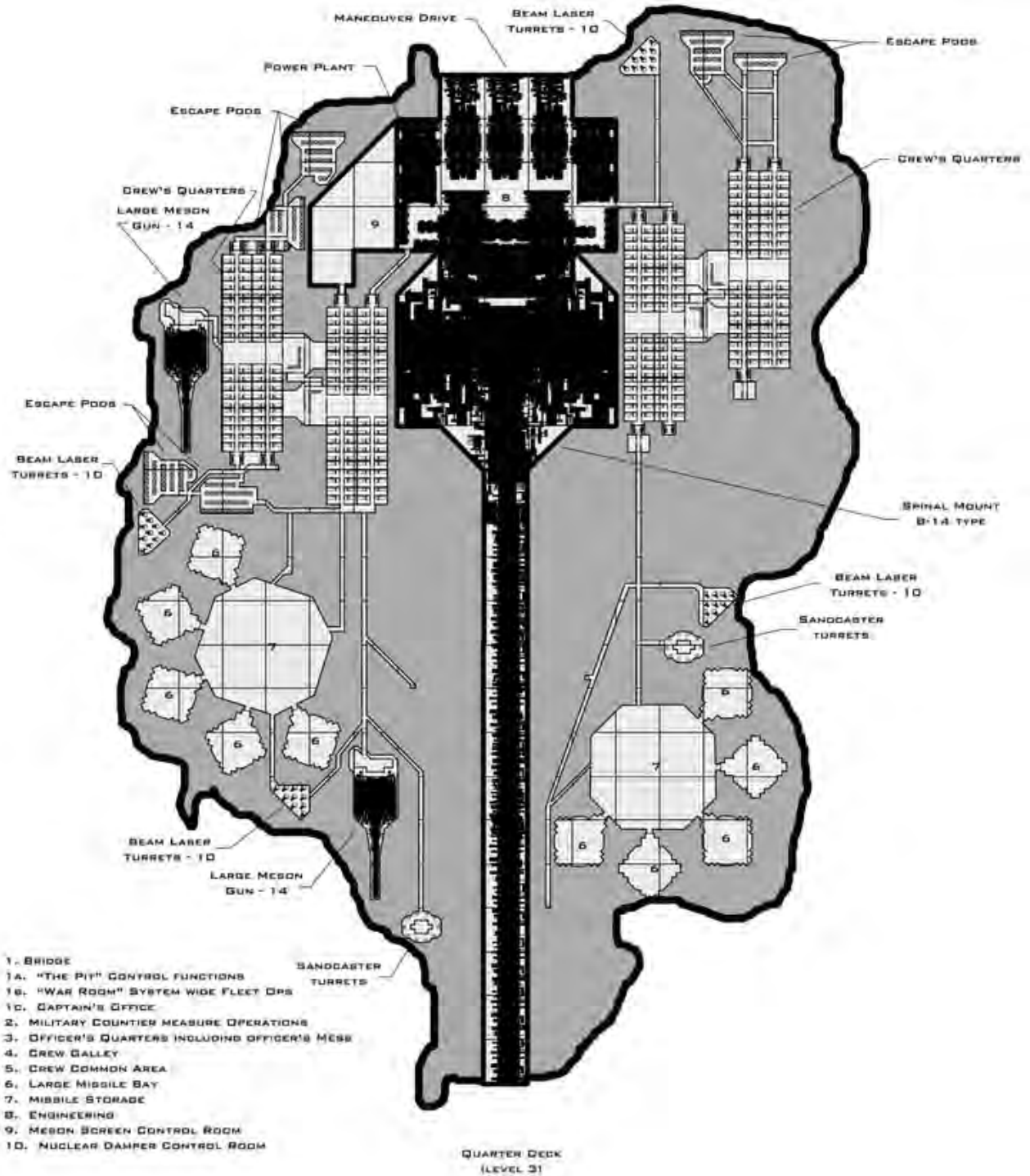
Craft	4 Modular Cutters	Full Scale Hangar	260	52
	80 40 ton fighters	Full Scale Hangar	4,160	832
	40 ton Launch Tube		1,000	500
	411 Escape Pods		205.5	41.1
Software	Manoeuvre/0			—
	Library			—
	Intellect			2
	Evade/3			6
	Fire Control/5			20
	Auto Repair/2			20
Maintenance Cost (monthly)				1.4038
Life Support Cost (monthly)				0.822
Total Tonnage & Cost			30,000	16,845.535

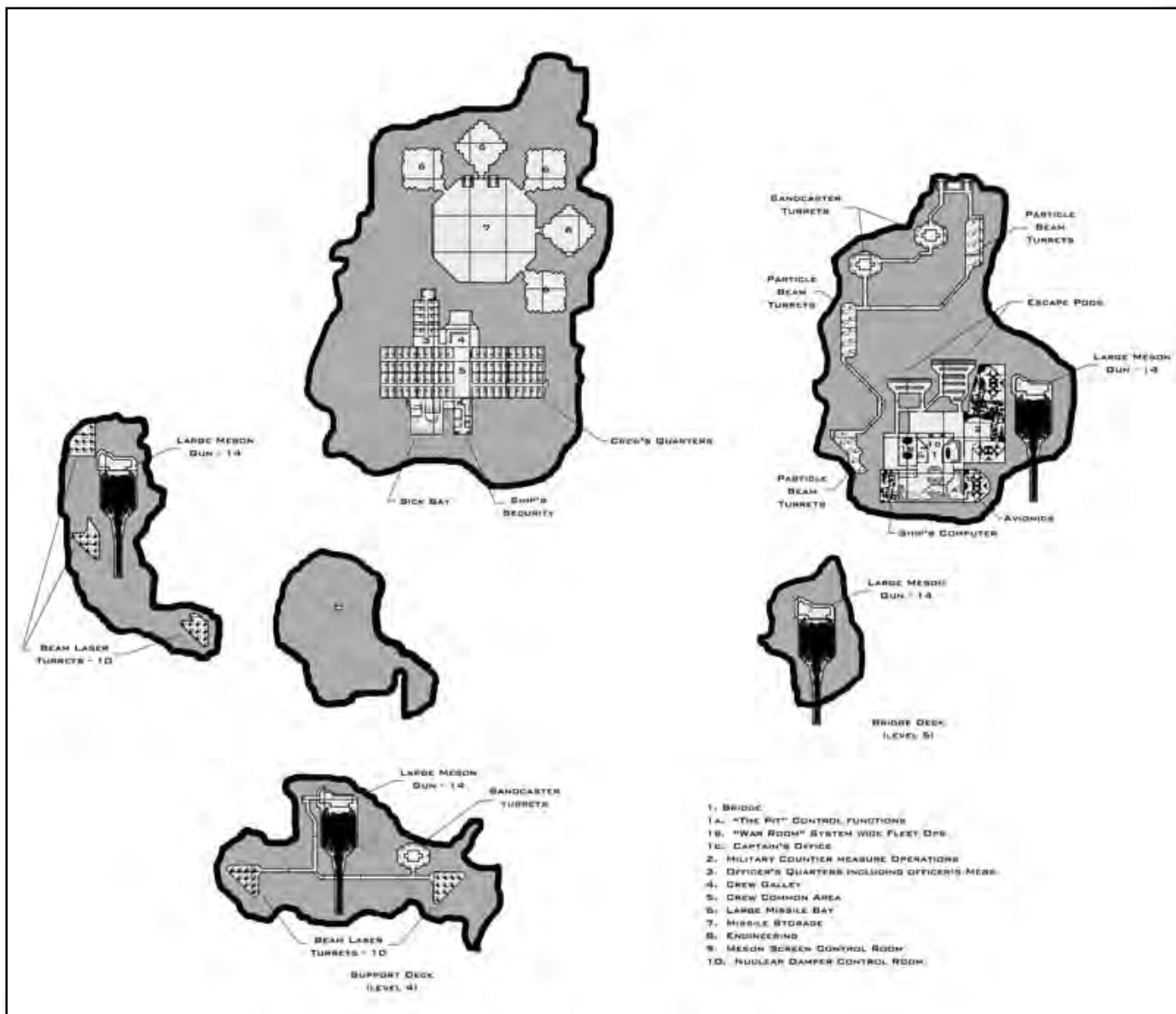
Department	Crew	Crew Damage Track
Command	19	Dead (—)
Engineering	26	Survivors (—4)
Gunnery	313	Skeleton (—2)
Flight	252	Half (—1)
Troops	120	Weakened
Service	73	Full
Frozen Watch	0	Battle
Total	803	Overstrength — Starting Position
Passenger Staterooms	0	Massively Overstrength
Low Berth Passengers	0	

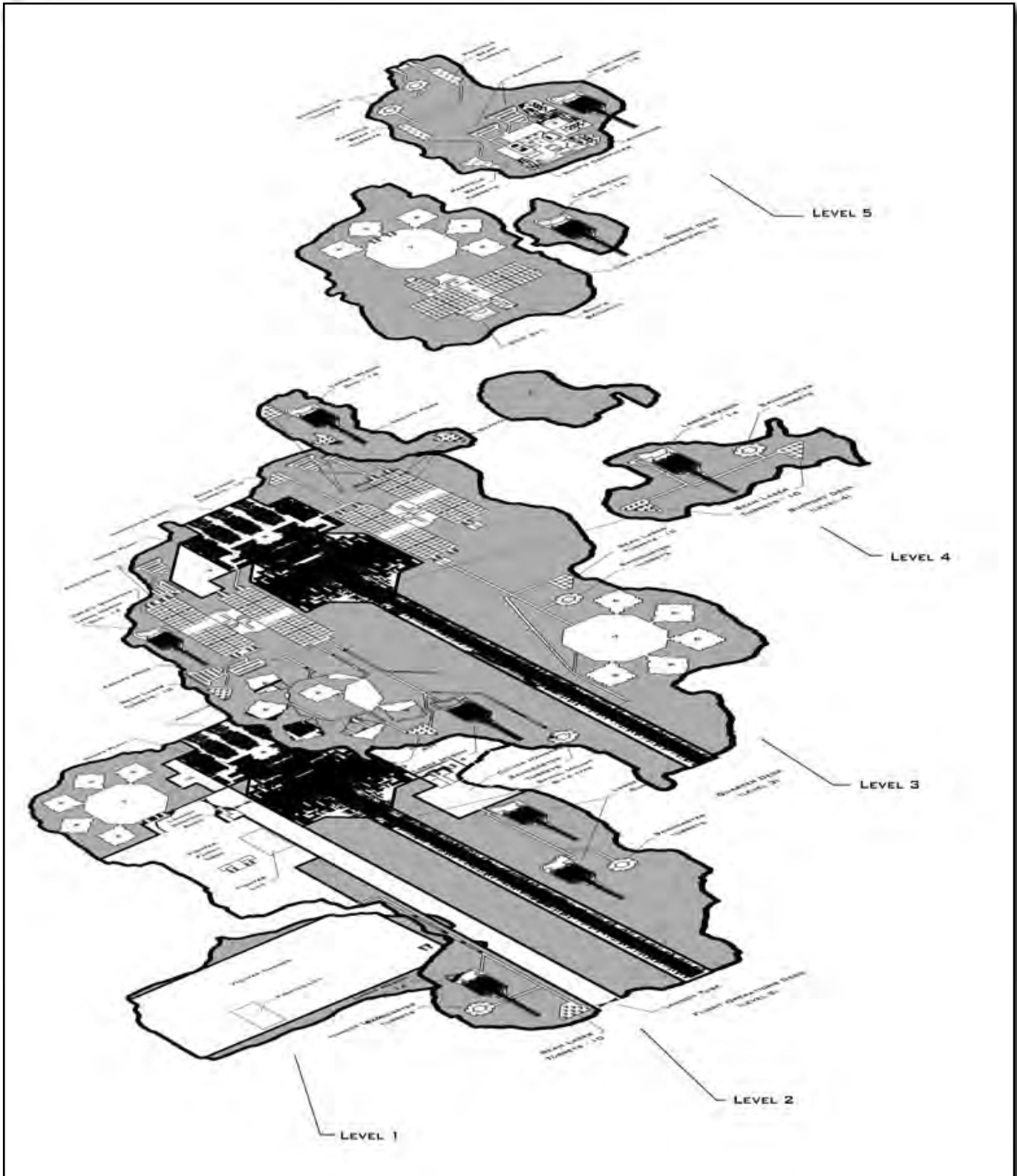


	Engineering		Main		Forward	
Hull	200		200		200	
Structure	200		200		200	
Roll	Internal	External	Internal	External	Internal	External
2	Hull	Crew	Hull	Crew	Hull	Crew
3	Meson Screen	14 x Beam Laser Turrets	5 x Meson Bay	14 x Particle Beam Turrets	Bridge	15 x Beam Laser Turrets
4	Manoeuvre Drive	Power Plant	Spinal Mount	Sensors	Spinal Mount	14 x Beam Laser Turrets
5	Fuel	14 x Beam Laser Turrets	10 x Missile Bay	14 x Beam Laser Turrets	10 x Missile Bay	14 x Beam Laser Turrets
6	Hull	Structure	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure	Hull	Structure
9	Fuel	16 x Sandcaster Turrets	10 x Missile Bay	16 x Sandcaster Turrets	10 x Missile Bay	16 x Sandcaster Turrets
10	Manoeuvre Drive	16 x Sandcaster Turrets	Hangar	Launch Tube	Computer	16 x Sandcaster Turrets
11	Nuclear Damper	Power Plant	5 x Meson Bay	14 x Particle Beam Turrets	10 x Missile Bay	15 x Beam Laser Turrets
12	Hull	Critical	Hull	Critical	Hull	Critical









CRUISER

Cruisers are more lightly armoured and less heavily armed than battleships. To unarmed, unarmoured ships, this difference is negligible since a cruiser can easily attack and destroy any non-combat ships. Cruisers are assigned to support battleships and carry combat to areas where a battleship is not considered necessary.

Planet class Heavy Cruiser

The *Planet* class heavy cruiser is typical for such ships in the Imperial Navy: a long cone structure studded with weaponry using the most advanced (TL15) technology available. Well armed and well armoured, it fulfils the basic design requirement of meeting the enemy and winning in battle. The *Planet* class is the latest design of heavy cruiser in Imperial service and will gradually replace the existing main heavy cruiser, the *Atlantic* class, which is fast approaching obsolescence due to shortfalls in its defences and operational limitations from its 5G acceleration.

This class of cruiser will also prove useful for independent operations, especially beyond the Imperial borders with 2 companies of Imperial Marines available for “goodwill” operations. Used alone, the ships are capable of a range of diplomatic and scientific operations. Used in squadrons, they provide a useful show of force or reinforcement for friendly client states.

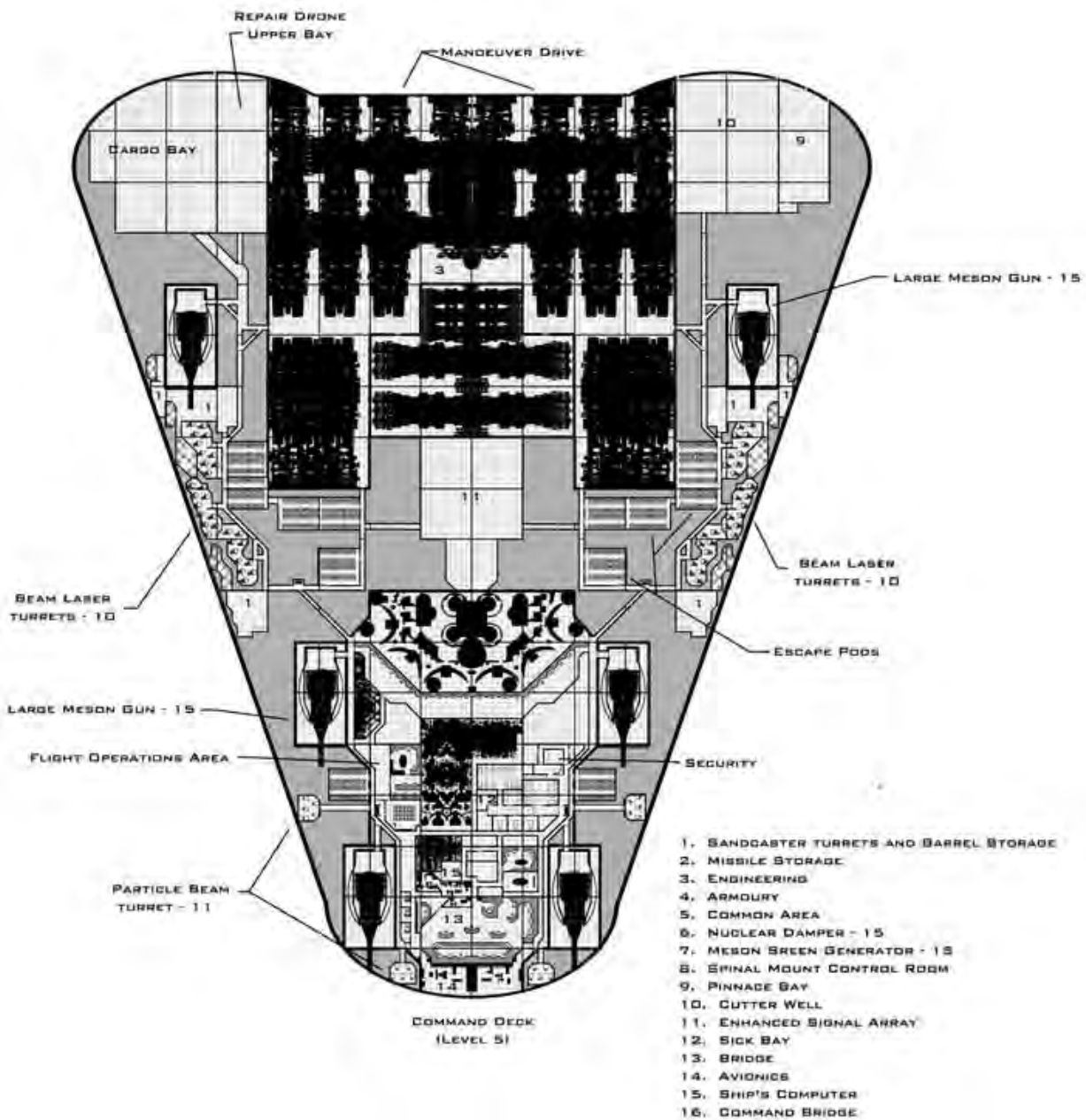
				Tons	Price (Mcr.)
Hull	75,000	Cone TL 15 hull			12,375
	4 sections each	Hull 535 Structure 535			
Armour	Bonded Superdense	10 points		6,250	6,875
Jump Drive	Jump 4			3,750	7,500
Manoeuvre Drive	Thrust 6			2,437.5	1,218.75
Power Plant	Rating 6–15			2,812.5	7,031.25
Bridge				1,500	1,500
	Command Bridge			320	2,250
	Holographic controls				937.5
Computer	Core/7fibx3	Rating 80 (hardened v EMP)			315
Electronics	Military Counter Measures x3	Enhanced Signal Processing and Distributed Arrays		198	297
Weapons	Spinal Mount	Type C–15	455 damage, Penetration rating IV	4,000	4,000
	Bays	10 x Large Meson Gun–15	Accurate, High Yield	1,010	2,000
		80 x Torpedo–12		2,480	1,920
	Turrets	80 x Triple Particle Beam–11	Accurate, High Yield	80	2,000
		240 x Triple Beam Laser–10	Accurate, High Yield	240	1,680
		100 x Triple Missile		100	325
		200 x Triple Sandcaster		200	350
	Screens	Level 6 Nuclear Damper–15		144	600
		Level 6 Meson Screen–15		252	1,080
Fuel	33,750 tons	One Jump–4, four weeks of operation		33,750	
Cargo	Ammunition	2,880 torpedoes		7,200	
		6,000 missiles		500	
		12,000 barrels		600	
	Cargo			326.65	
632 staterooms				2528	316

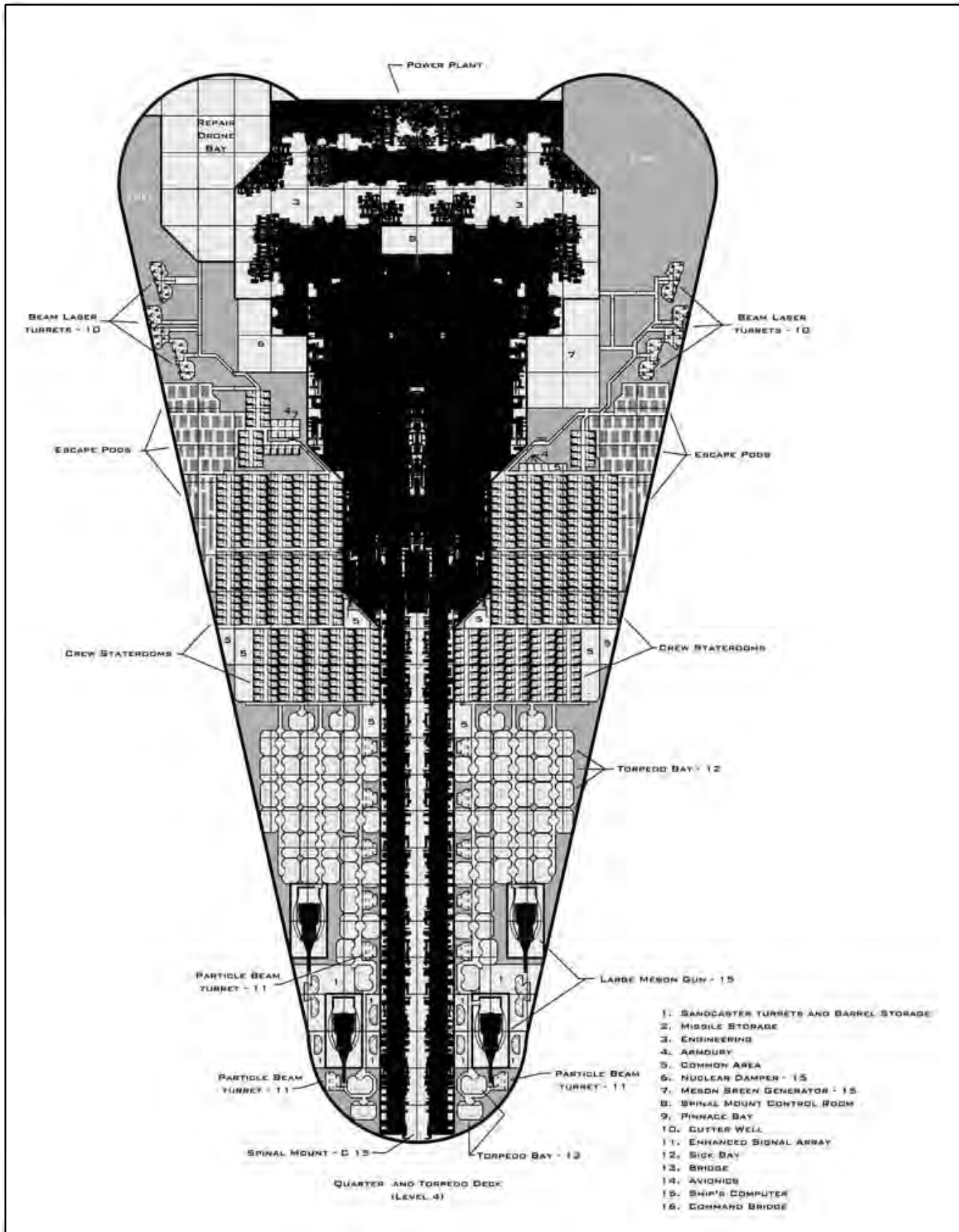
Extras	Armoured bulkheads for Drives	900	180
	Bridges	182	36.4
	Spinal Mount	400	80
	Bays	349	69.8
	Turrets	62	12.4
	Screens	39.6	7.92
	Fuel Scoops		1
	Fuel Processor All fuel in 2 days	843.75	42.1875
	Luxuries	10	1
	Probe Drones (5)	1	0.5
	Repair Drones	750	150
	4 Briefing Rooms	16	2
	4 Modular Cutters Full scale hangars	260	164
	2 Pinnaces Full scale hangars	104	60.8
	44 armouries	88	22
	632 escape pods	316	63.2
Software	Jump Control/4		—
	Manoeuvre/o		—
	Library		—
	Intellect		3
	Evade/3		9
	Fire Control/5		30
	Auto Repair/2		30
Maintenance Cost	(Monthly)		4.6257
Life Support Cost	(Monthly)		1.896
Total Tonnage and Cost		75,000	55,535.7075

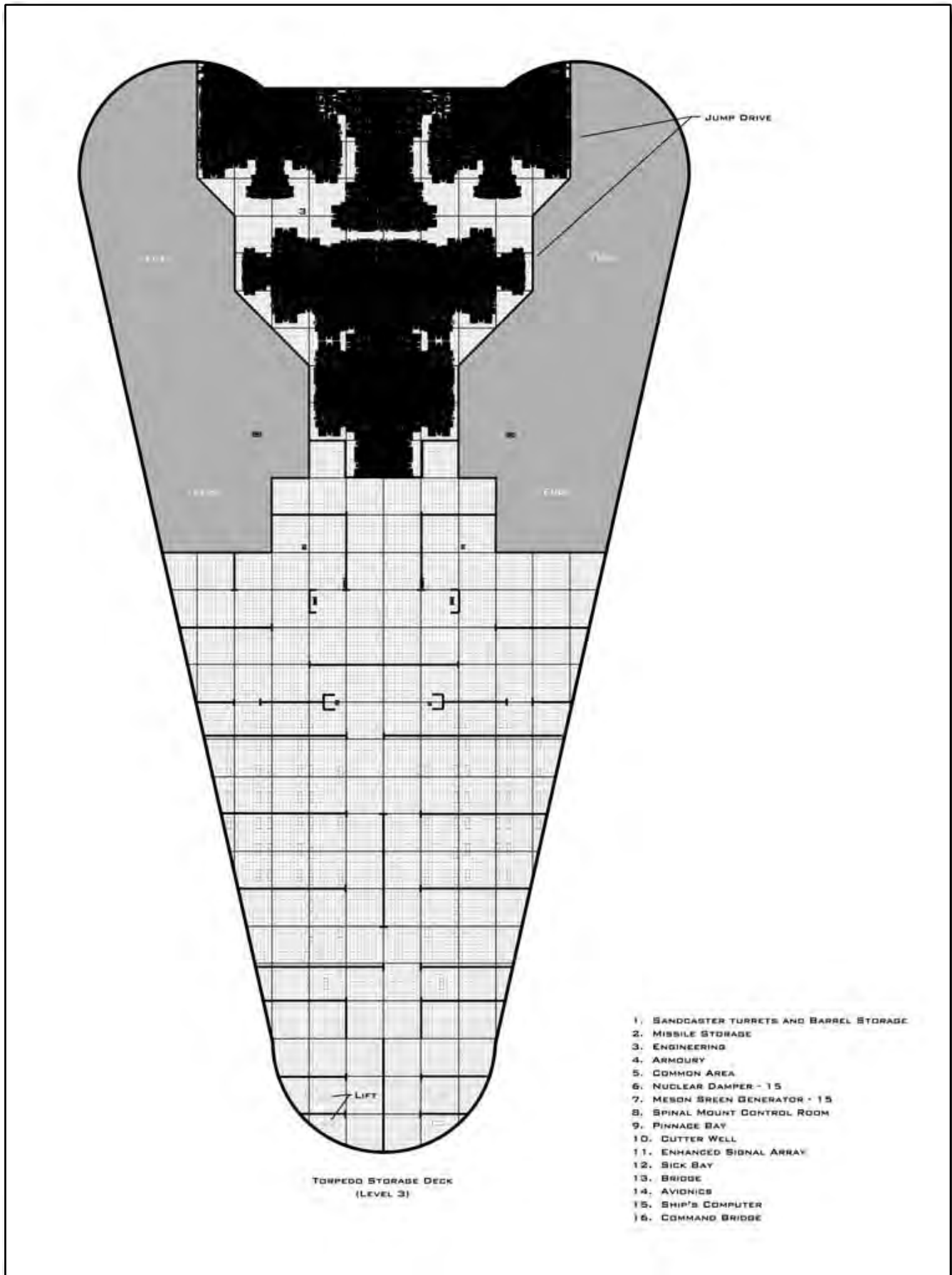
Department	Crew	Crew Damage Track
Command	46	Dead (—)
Engineering	109	Survivors (—4)
Gunnery	573	Skeleton (—2)
Flight	18	Half (—1)
Troops	250	Weakened
Service	182	Full
Frozen Watch	0	Battle
Total	1,178	Overstrength — Starting Position
Passenger Staterooms	20	Massively Overstrength
Low Berth Passengers	0	

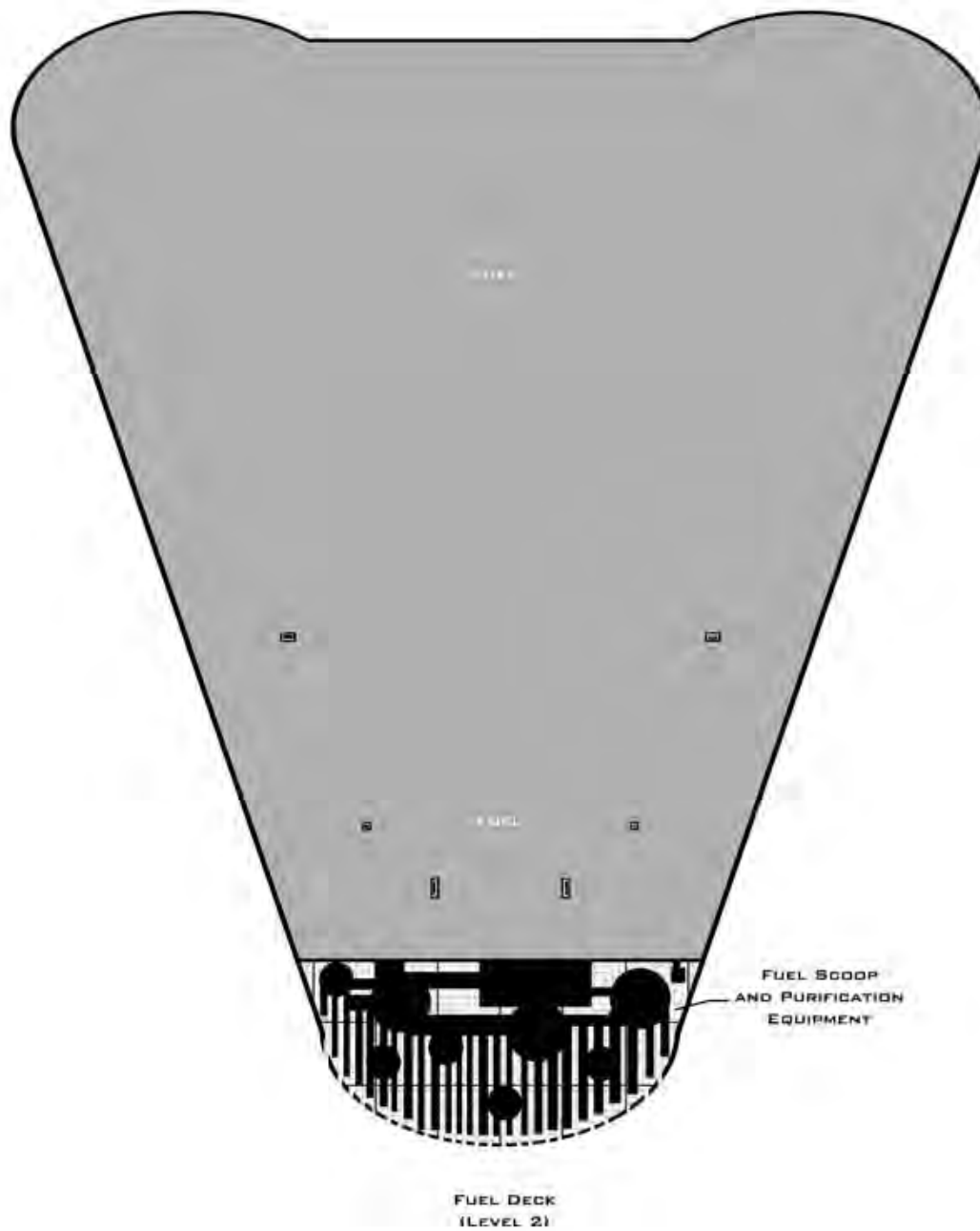
	Engineering		Amidships		Main		Forward	
Hull	535		535		535		535	
Structure	535		535		535		535	
Roll 2d6	External	Internal	External	Internal	External	Internal	External	Internal
2	Hull	Crew	Hull	Crew	Hull	Crew	Hull	Crew
3	40 x Beam Laser Turrets	Jump Drive	20 x Particle Beam turrets	12 x Torpedo Bay	40 x Beam Laser Turrets	Nuclear Damper	20 x Particle Beam turrets	Bridge
4	Manoeuvre Drive	Power Plant	40 x Beam Laser Turrets	Spinal Mount	30 x Missile Turrets	Spinal Mount	30 x Sandcaster Turrets	Spinal Mount
5	30 x Sandcaster Turrets	Fuel	20 x Missile Turrets	5 x Meson Gun Bay	30 x Sandcaster Turrets	5 x Meson Gun Bay	30 x Sandcaster Turrets	12 x Torpedo Bay
6	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure
9	30 x Sandcaster Turrets	Fuel	20 x Missile Turrets	12 x Torpedo Bay	30 x Sandcaster Turrets	12 x Torpedo Bay	20 x Sandcaster Turrets	10 x Torpedo Bay
10	Manoeuvre Drive	Jump Drive	40 x Beam Laser Turrets	Computer	30 x Missile Turrets	Hangar	Sensors	12 x Torpedo Bay
11	40 x Beam Laser Turrets	Power Plant	20 x Particle Beam turrets	Meson Screen	40 x Beam Laser Turrets	Command Bridge	20 x Particle Beam turrets	12x Torpedo Bay
12	Hull	Critical	Hull	Critical	Hull	Critical	Hull	Critical

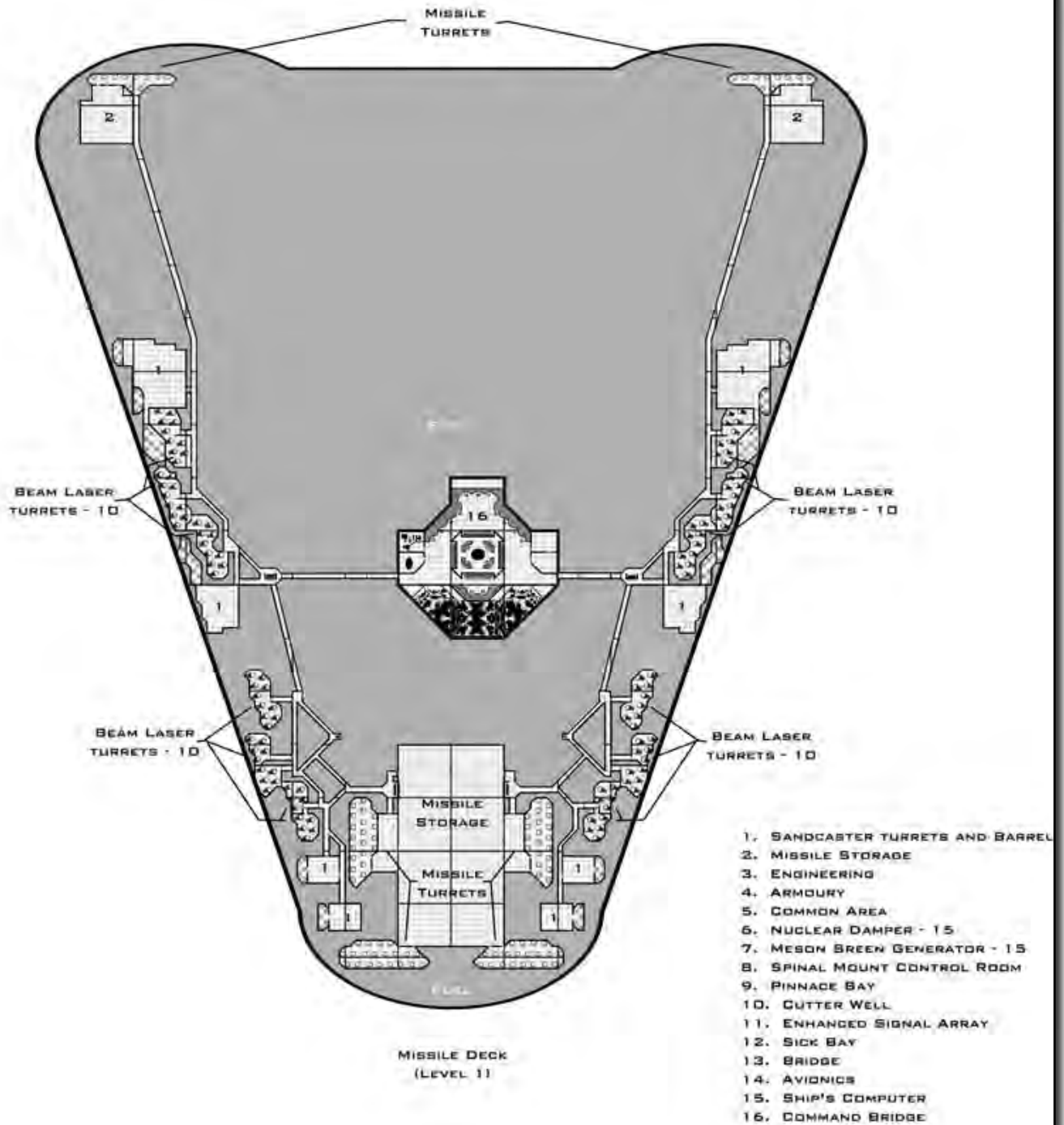












CARRIER

Carriers are designed to carry large numbers of small combat craft, which in turn attack the enemy's combatants or installations.

Light Carrier

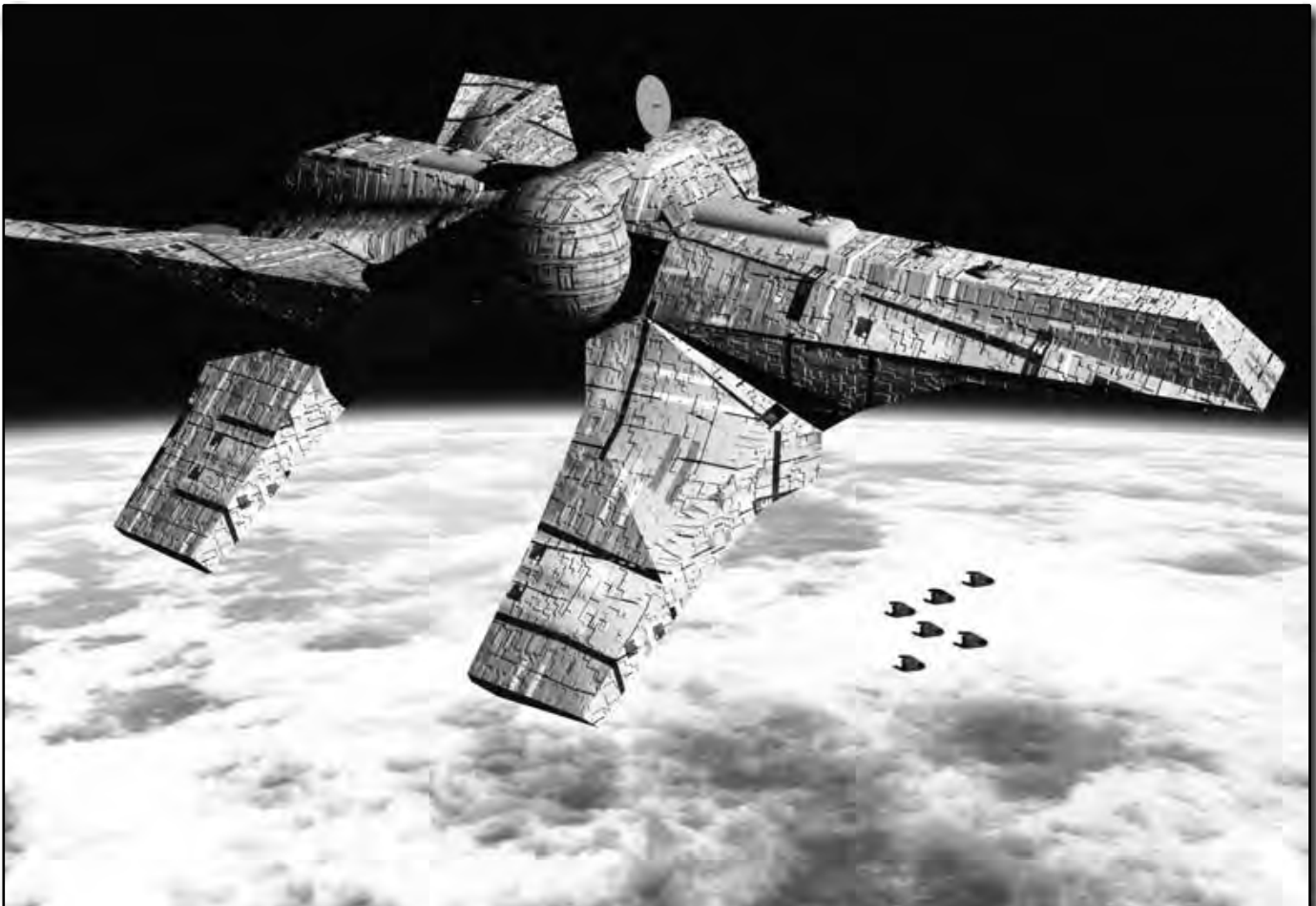
A thirty-thousand-ton Light carrier is the centrepiece of many planetary navies. The carrier is capable of acting as an orbital fighter base, and by using atmosphere-capable fighters, the navy can exert control over both sky and local space. Light carriers are relatively lightly armed, as they are not expected to engage another capital ship. This design is TL 13, but more advanced light carriers are also used by the Imperial Navy. Note that 20-ton fighters may be exchanged for 40-ton fighters on a 2:1 basis, resulting in a wing of up to 80 40-ton fighters.

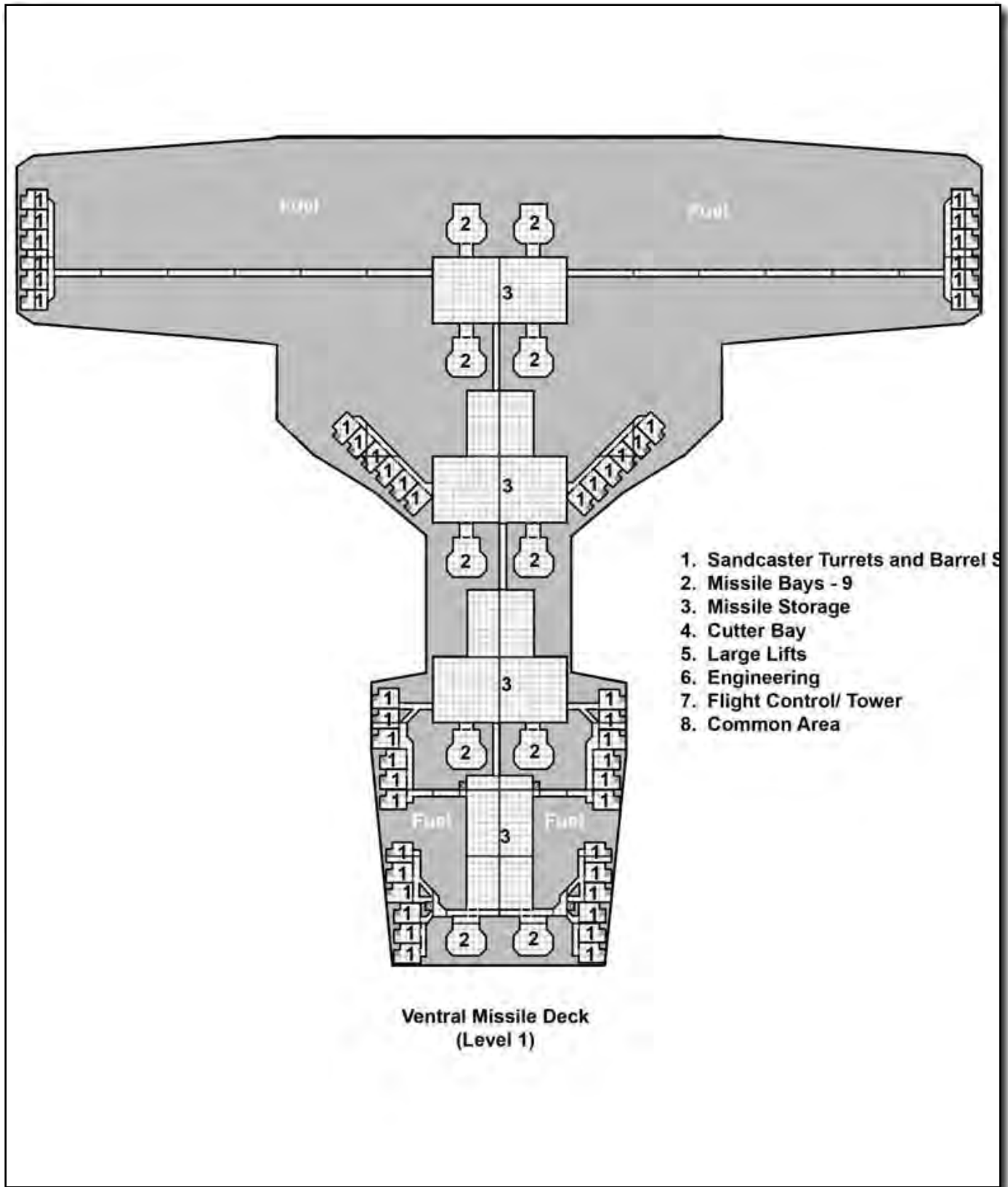
			Tons	Price (MCr)
Hull	30,000	Close Structure		2,700
	3 sections each	Hull 200 Structure 200		
Armour	Crystaliron	2 points	750	270
Jump Drive	Jump 4		1,500	3,000
Manoeuvre Drive	Thrust 2		975	487.5
Power Plant	Rating 4		1,125	2,812.5
Bridge			450	450
	Holographic controls			112.5
Computer	Core/7fibx2	Rating 80 (hardened v EMP)		210
Electronics	Counter Measures x2	Enhanced Signal Processing and Distributed Arrays	54	84
Weapons	Bays	20 x Missile-9	620	480
	Turrets	40 x Triple Particle Beam-11 Accurate, High Yield	40	1,000
		120 x Triple Beam Laser-10 Accurate, High Yield	120	840
		120 x Triple Sandcaster	120	210
	Screens	Level 2 Nuclear Damper	60	80
		Level 2 Meson Screen	120	160
Fuel	13,500 tons	One Jump-4, four weeks of operation	13,500	
Cargo	Ammunition	4,800 missiles	400	
		8,000 barrels	400	
	Cargo	175 tons	175	
	Fighter Fuel		400	
	Fighter Ammunition and Weapon Modules		300	
341 Staterooms			1364	170.5
Extras	Armoured Bulkheads for	Drives	360	72
		Bridge	45	9
		Bays	62	12.4
		Turrets	28	5.6
		Screens	18	3.6
	Fuel Scoops			1
	Fuel Processor	All fuel in 2 days	337.5	16.875
	Luxuries		5	1
	Probe Drones (5)		1	0.2

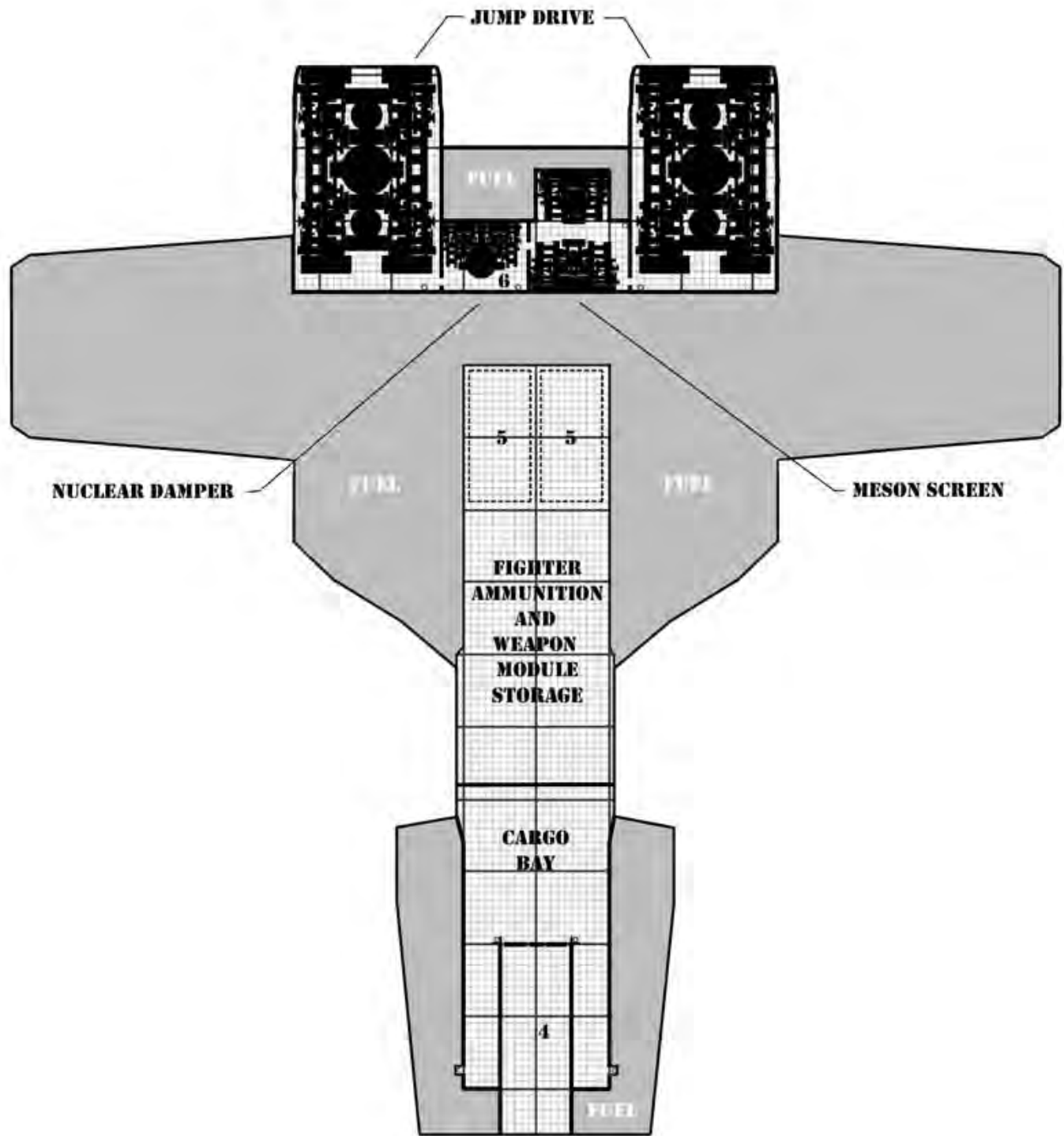
	Repair Drones		100	20
	11 Briefing Rooms		44	5.5
	13 Armouries		26	6.5
Craft	2 Modular Cutters	Full scale Hangars	130	26
	100 20-ton Fighters	Full scale Hangars	2,600	520
	30 40-ton Fighters	Full scale Hangars	1,560	312
	2 40-ton Launch Tubes		2,000	1,000
	341 Escape Pods		170.5	34.1
Software	Jump Control/4			—
	Manoeuvre/o			—
	Library			—
	Intellect			2
	Evade/3			6
	Fire Control/5			20
	Auto Repair/2			20
Maintenance Cost (monthly)				1.2634
Life Support Cost (monthly)				0.682
Total Tonnage & Cost			30,000	15,160.775

Department	Crew	Crew Damage Track
Command	19	Dead (—)
Engineering	44	Survivors (—4)
Gunnery	174	Skeleton (—2)
Flight	296	Half (—1)
Troops	0	Weakened
Service	109	Full
Frozen Watch	0	Battle
Total	642	Overstrength – starting position
Passenger Staterooms	20	Massively Overstrength
Low Berth Passengers	0	

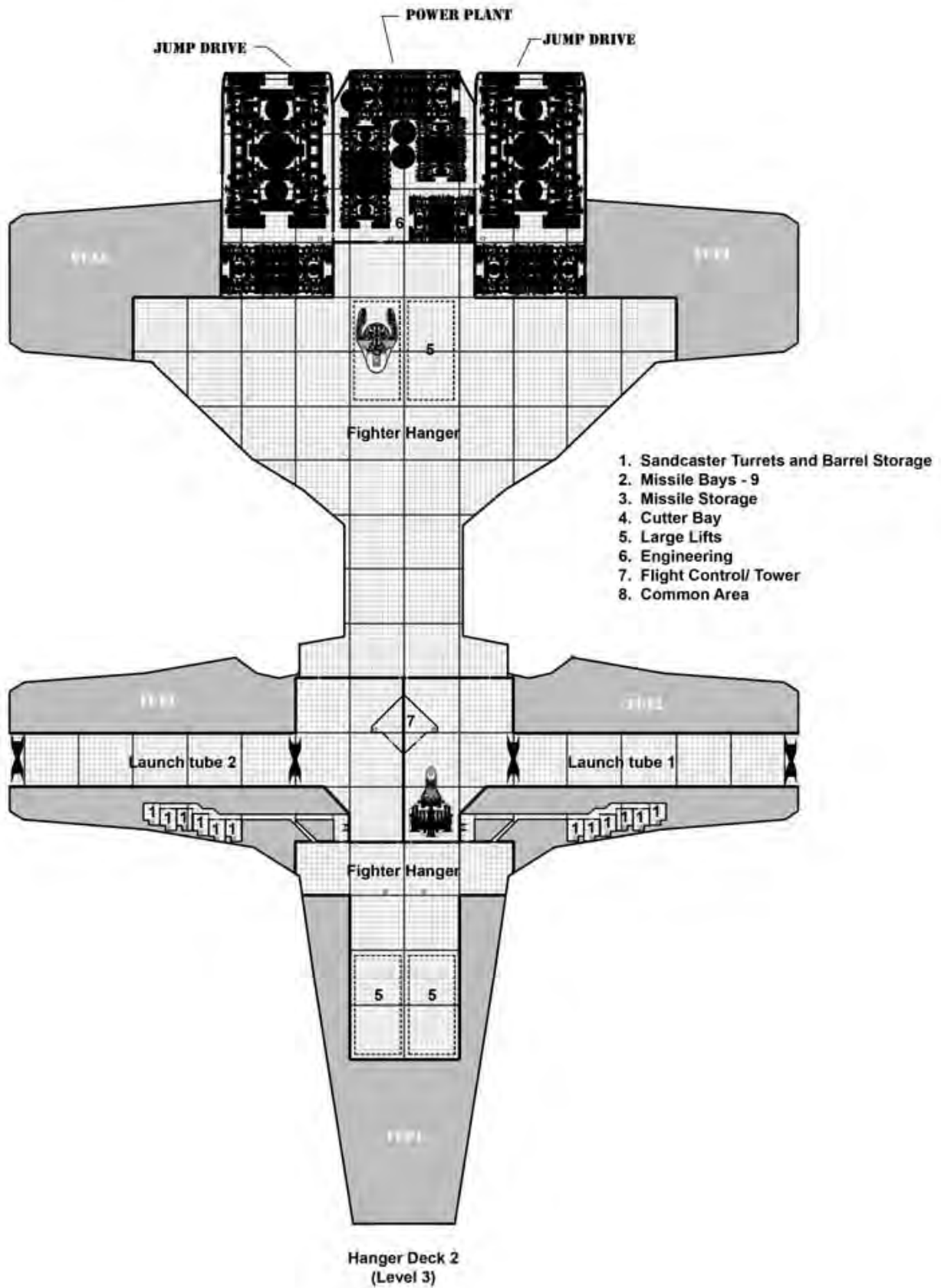
	Engineering		Main		Forward	
Hull	200		200		200	
Structure	200		200		200	
Roll	Internal	External	Internal	External	Internal	External
2	Hull	Crew	Hull	Crew	Hull	Crew
3	Nuclear Damper	Jump Drive	4 x Missile Bay	20 x Particle Beam Turrets	Bridge	30 x Sandcaster Turrets
4	Manoeuvre Drive	Power Plant	50 x 20 ton fighter hangar	Launch Tube	Cutter Hangar	Sensors
5	Fuel	24 x Beam Laser Turrets	4 x Missile Bay	24 x Beam Laser Turrets	4 x Missile Bay	24 x Beam Laser Turrets
6	Hull	Structure	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure	Hull	Structure
9	Fuel	30 x Sandcaster Turrets	4 x Missile Bay	30 x Sandcaster Turrets	4 x Missile Bay	24 x Beam Laser Turrets
10	Manoeuvre Drive	Jump Drive	30 x 40 ton fighter hangar	Launch Tube	Computer	30 x Sandcaster Turrets
11	Meson Screen	Power Plant	50 x 20 ton fighter hangar	20 x Particle Beam Turrets	Structure	24 x Beam Laser Turrets
12	Hull	Critical	Hull	Critical	Hull	Critical

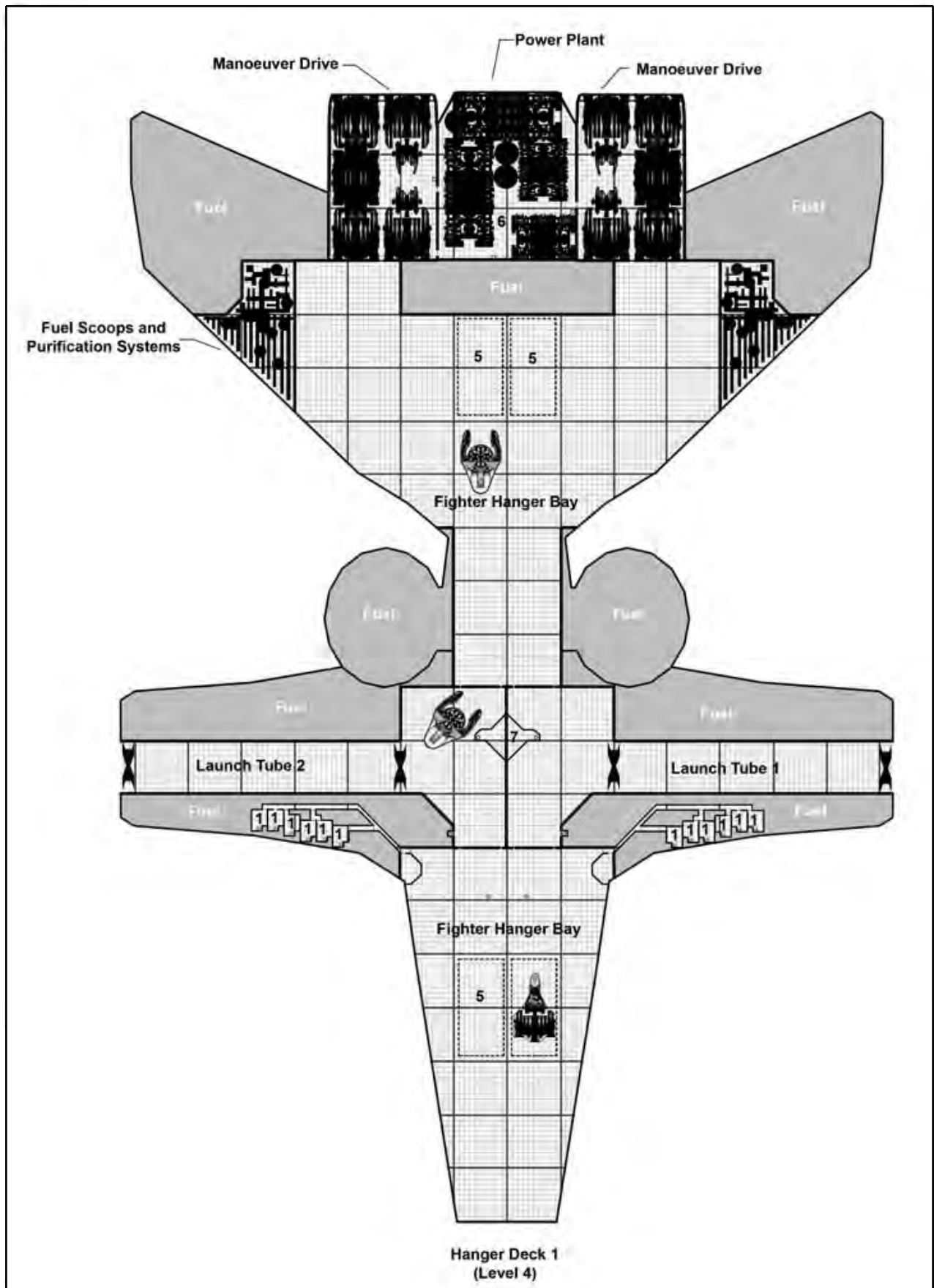


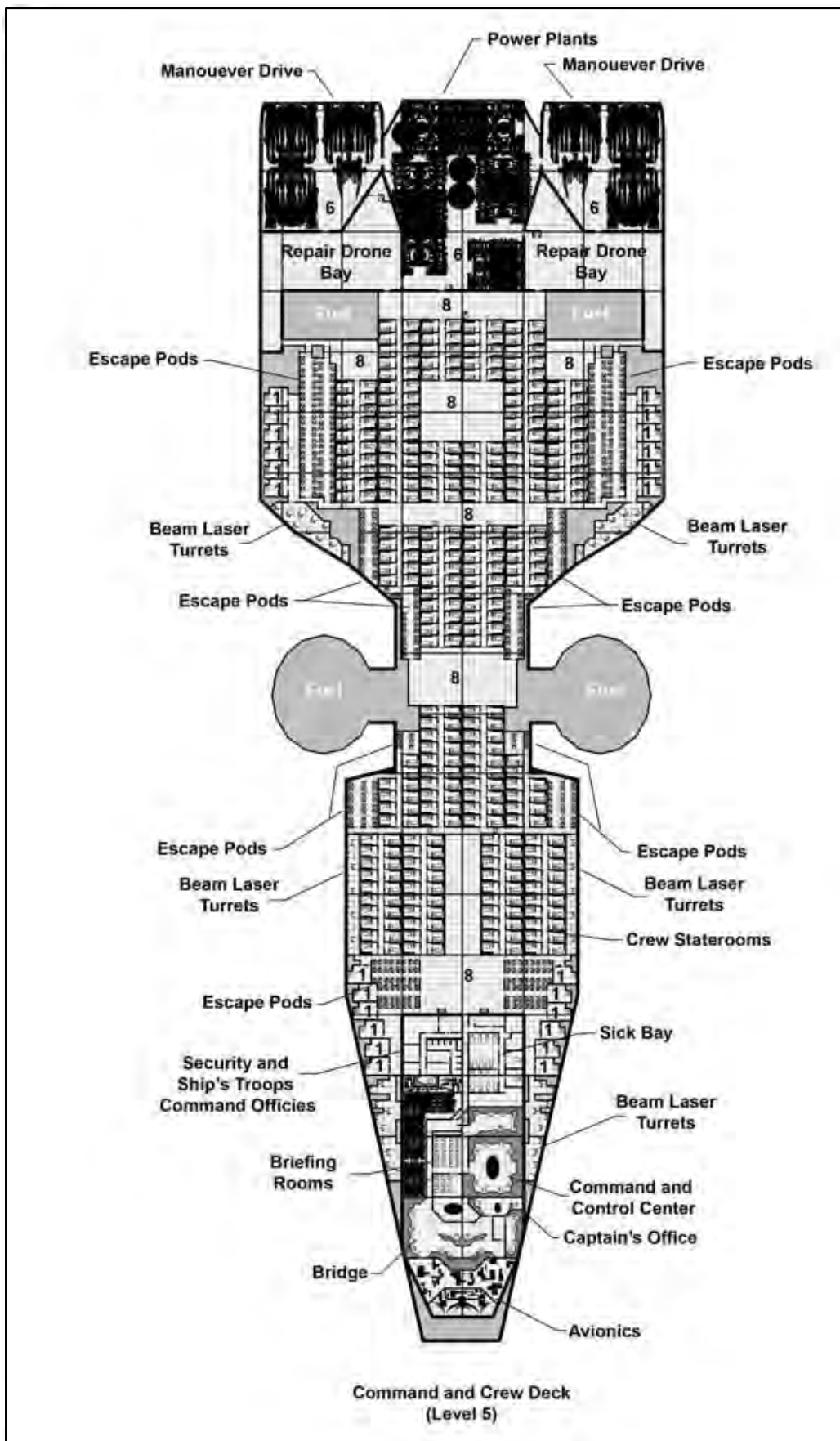




Cargo and Storage Deck
(Level 2)









ESCORT

Escort vessels are intended to protect and assist larger vessels. They are capable of independent action, but are usually assigned to support battleships and cruisers.

P.F. Sloan class Fleet Escort

Fleet escorts are designed for routine fleet security and support and to mop up damaged enemy vessels, or to deal with smaller hostile ships. They are not made to take on other capital ships. Fleet escorts are assigned in quantity for local or system defence any time that several squadrons or a fleet are present. If it is remembered that *Sloans* are lightly armed and armoured, then their performance can be seen as admirable, although they cannot withstand major engagements. It should be noted that apart from the TL15 sensor suite, the ship can be built at TL12–13, increasing the number of yards capable of building and supporting this vessel.

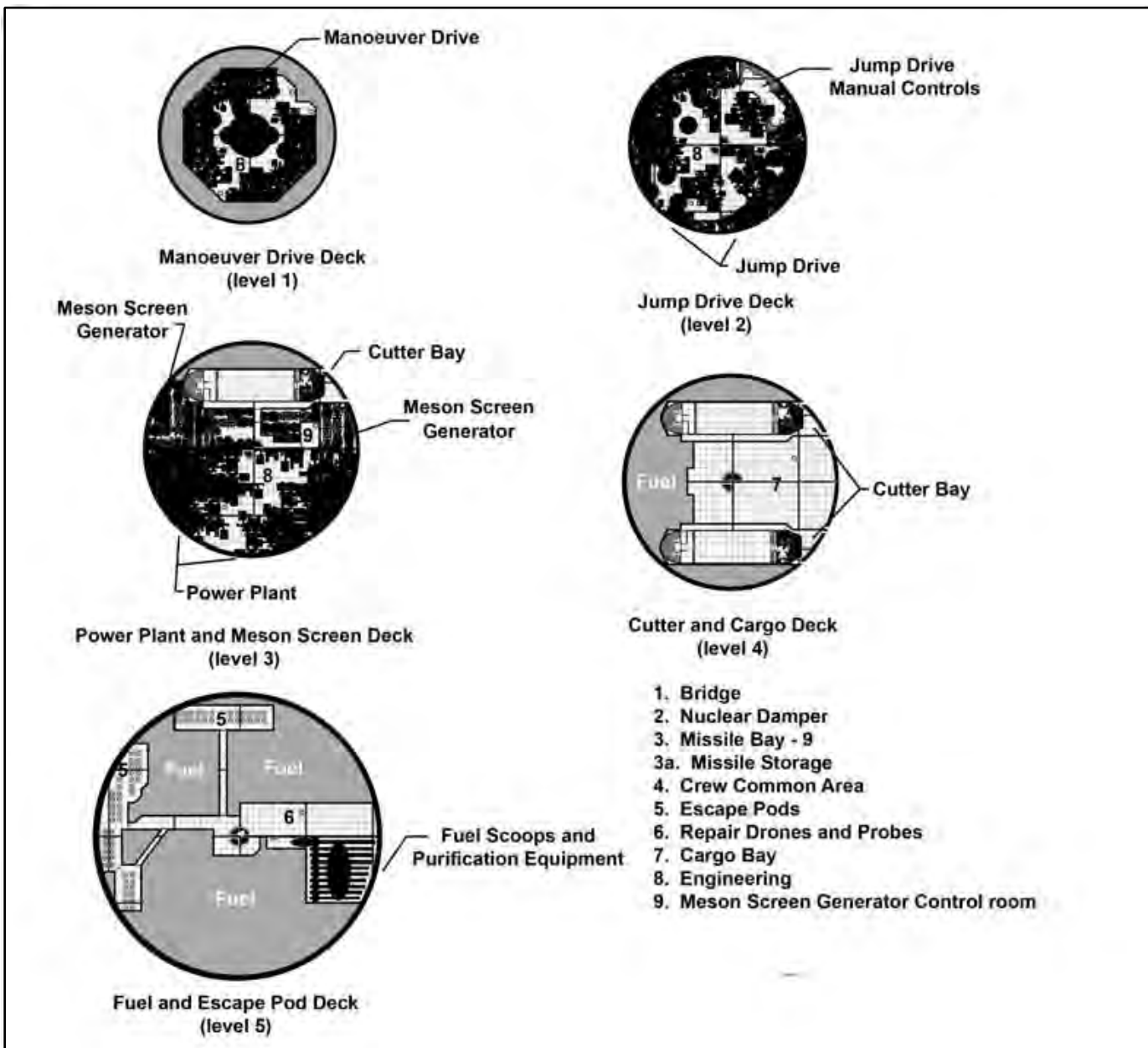


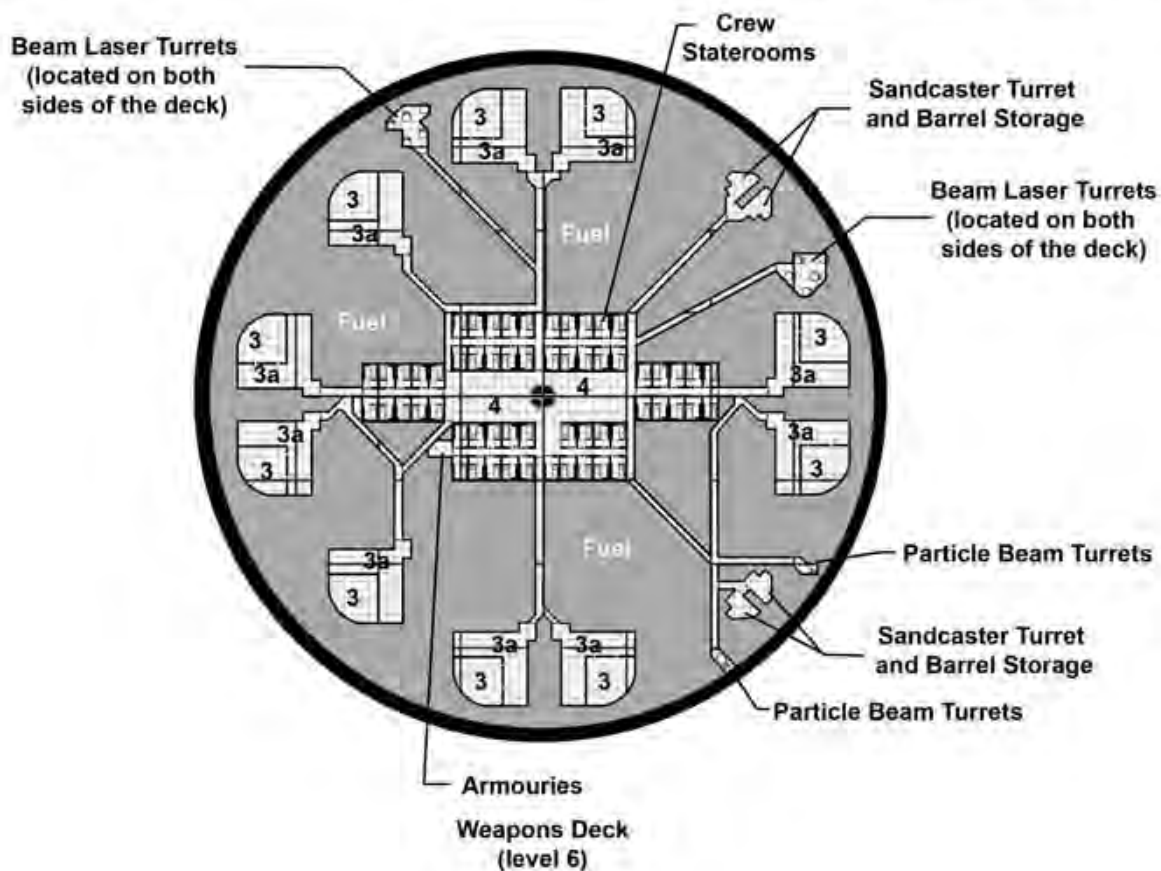
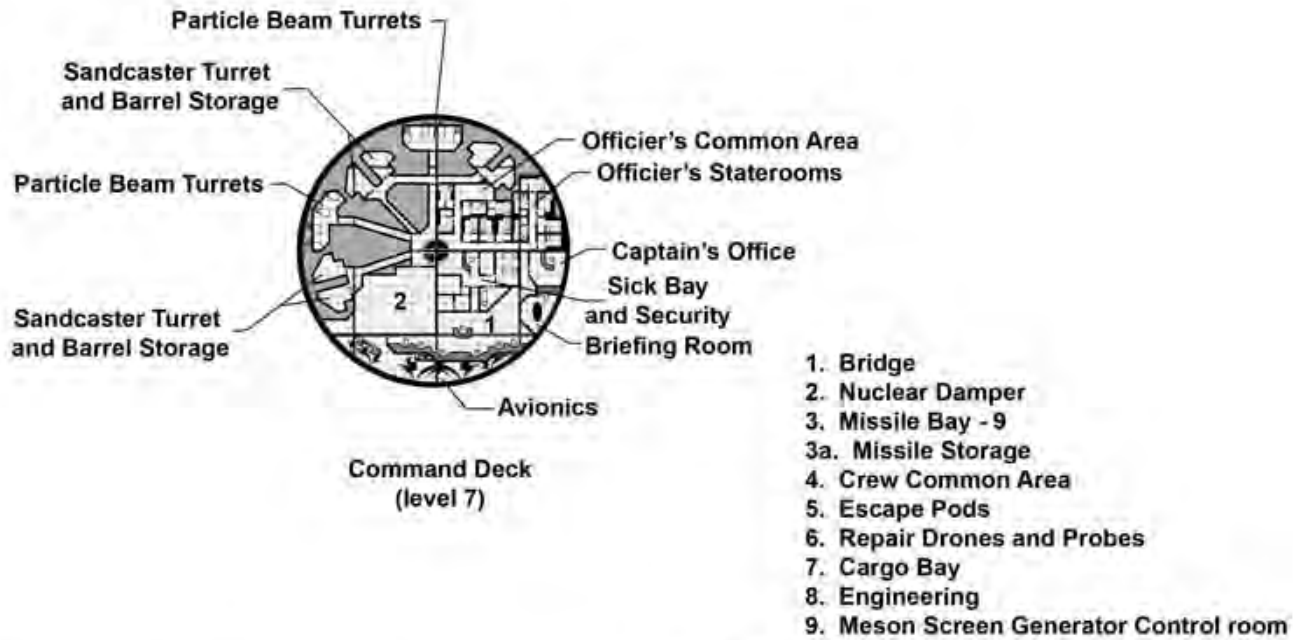
			Tons	Price (MCr)
Hull	5,000	Cylinder TL 12 hull		500
	2 sections each	Hull 50 Structure 50		
Armour	Crystaliron	6 points	375	150
Jump Drive	Jump 4		250	500
Manoeuvre Drive	Thrust 6		162.5	81.25
Power Plant	Rating 6		187.5	468.75
Bridge			50	50
	Holographic Controls			12.5
Computer	Core/6 fib x2	Rating 70 (hardened v EMP)		150
Electronics	Military Counter Measures	Enhanced Signal Processing and Distributed Arrays	66	99
Weapons	Bays	10 x Missile–9	310	240
	Turrets	10 x Triple Particle Beam–11 Accurate, High Yield	10	250
		20 x Triple Beam Laser–10 Accurate, High Yield	20	140
		10 x Triple Sandcaster	10	17.5
	Screens	Level 2 Nuclear Damper	40	60
		Level 2 Meson Screen	100	140
Fuel	2,250 tons	One Jump–4, four weeks of operation	2,250	
Cargo	Ammunition	2,880 missiles	240	
		720 barrels	36	
	Cargo	141.75 tons	141.75	

72 Staterooms			288	36
Extras	Armoured bulkheads for Drives		60	12
	Bridge		5	1
	Bays		31	6.2
	Turrets		4	0.8
	Screens		14	2.8
	Fuel Scoops			1
	Fuel Processor	All fuel in 2 days	56.25	2.8125
	Luxuries		5	0.5
	Probe Drones (5)		1	0.5
	Repair Drones		50	10
	3 armouries		6	1.5
Craft	3 Modular Cutters	Full scale hangars	195	39
	72 Escape pods		36	7.2
Software	Jump Control/4			–
	Manoeuvre/o			–
	Library			–
	Intellect			2
	Evade/3			6
	Fire Control/5			20
	Auto Repair/2			20
Maintenance Cost (monthly)				0.2524
Life Support Cost (monthly)				0.144
Total Tonnage & Cost			5,000	3028.3125

Department	Crew	Crew Damage Track
Command	13	Dead (–)
Engineering	8	Survivors (–4)
Gunnery	62	Skeleton (–2)
Flight	9	Half (–1)
Troops	0	Weakened
Service	19	Full
Frozen Watch	0	Battle
Total	111	Overstrength – Starting Position
Passenger Staterooms	10	Massively Overstrength
Low Berth Passengers	0	

	Engineering		Forward	
Hull	50		50	
Structure	50		50	
Roll	Internal	External	Internal	External
2	Hull	Crew	Hull	Crew
3	Nuclear Damper	Jump Drive	Bridge	10 x Beam Laser Turrets
4	Manoeuvre Drive	Power Plant	3 x Missile Bay	Computer
5	Fuel	5 x Particle Beam Turrets	2 x Missile Bay	5 x Sandcaster Turrets
6	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure
9	Fuel	5 x Particle Beam Turrets	2 x Missile Bay	5 x Sandcaster Turrets
10	Manoeuvre Drive	Jump Drive	Sensors	Hangar
11	Meson Screen	Power Plant	3 x Missile Bay	10 x Beam Laser Turrets
12	Hull	Critical	Hull	Critical





OTHER VESSELS

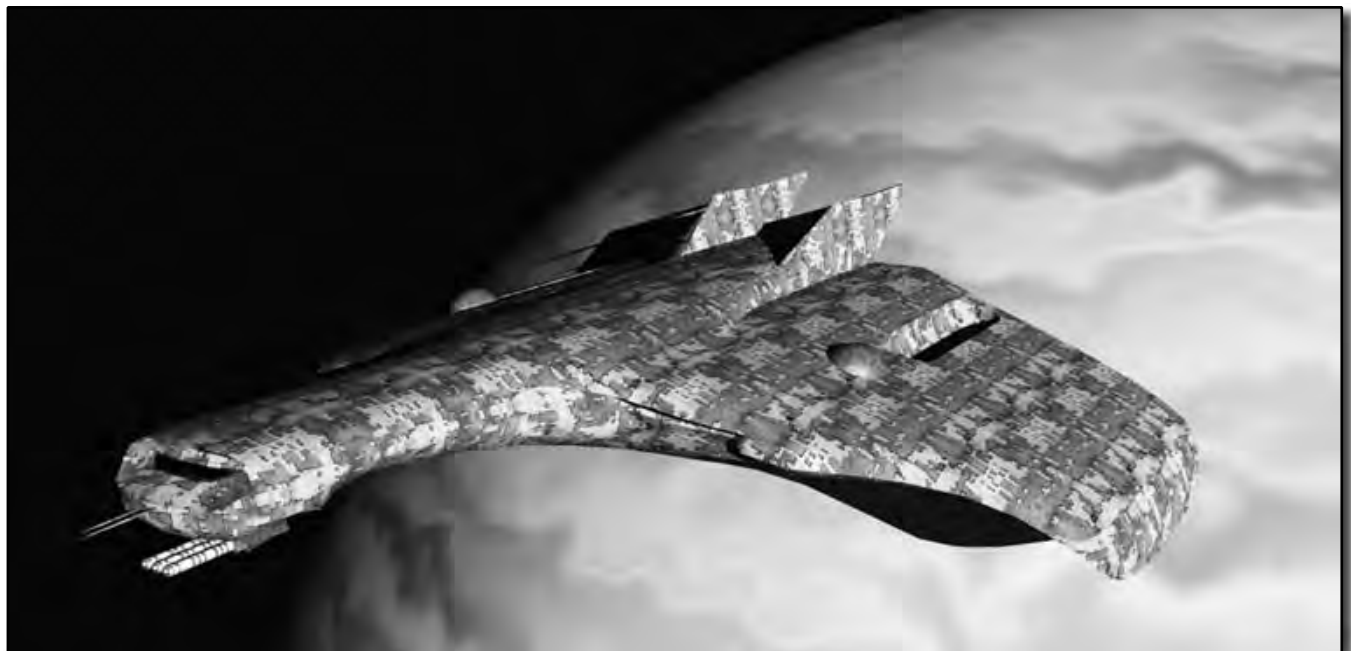
Superfreighter

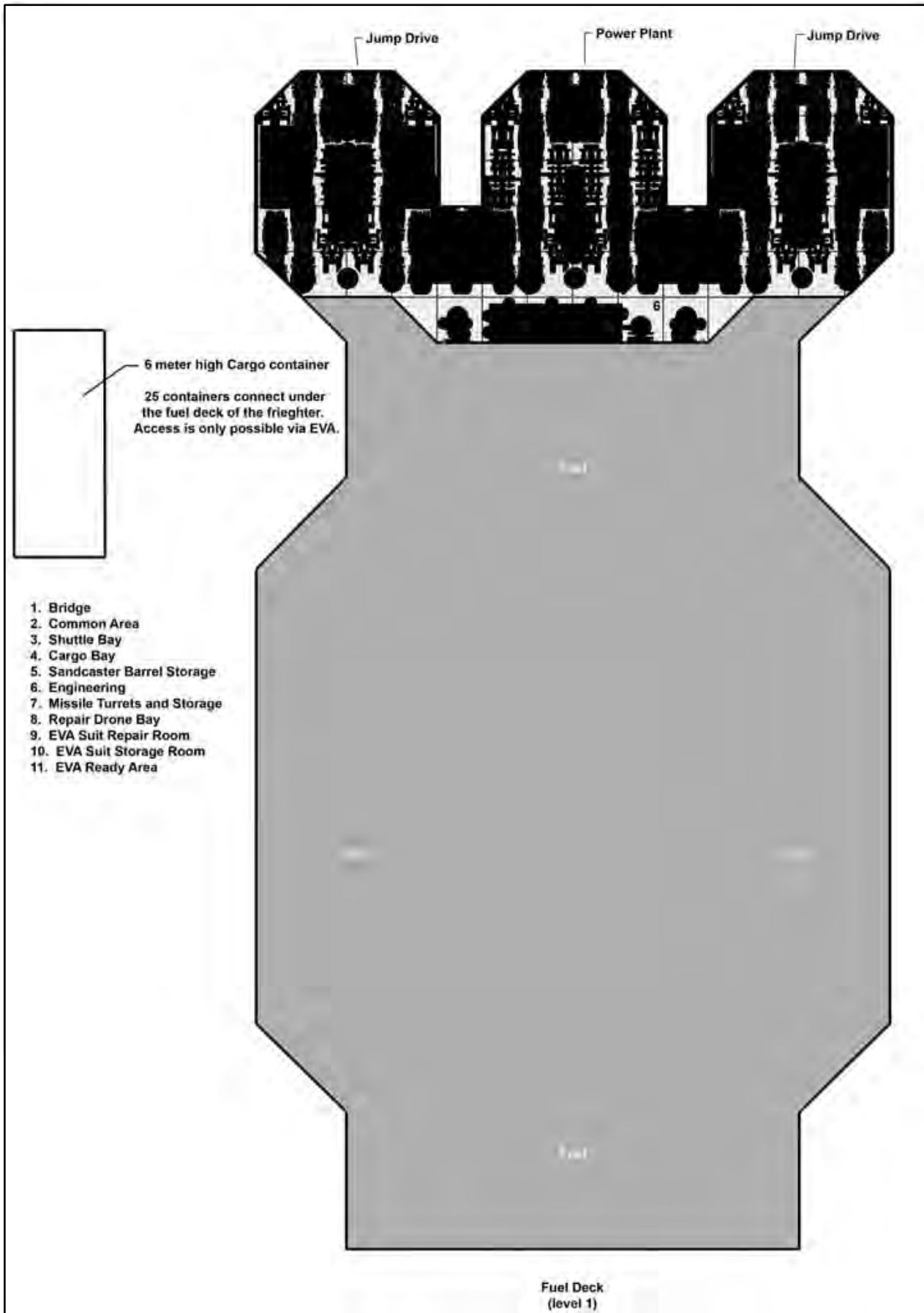
This vessel is more than 2,000 tons, but is not a capital ship. The megacorporations use massive cargo ships like this one to conduct interstellar trade. Capturing a superfreighter is the ultimate goal of many pirate gangs. All but 3,563 tons of its cargo is carried in 2,000 ton modules which can be used as cargo containers, fuel tanks, space habitats and so on. The ship's integral fuel tanks only have enough fuel for Jump-3, although it can use containerised fuel (10,000 tons) to make Jump-4.

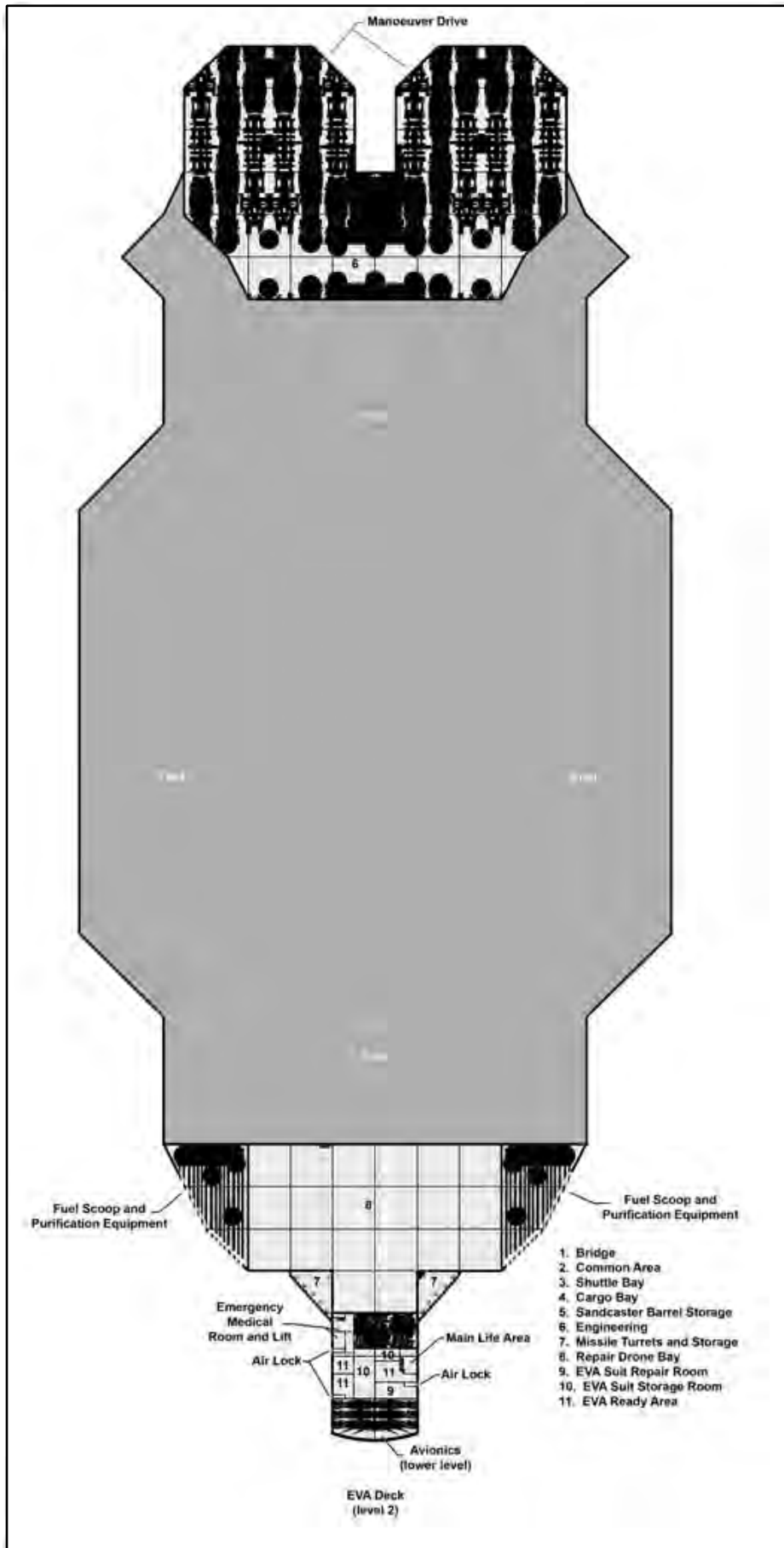
			Tons	Price (MCr)
Hull	100,000 Tons	Close Structure		9,000
	4 sections each	Structure 500		
		Hull 500		
Armour	None			
Jump Drive	Jump-4		5,000	10,000
Manoeuvre Drive	Thrust 1		1,000	500
Power Plant	Rating-4		3,000	7,500
Bridge				
Computer	Core/6	Rating 70		50
Electronics	Advanced	DM+1	3	2
Weapons	Turrets	20 x Triple Beam Laser	20	80
		10 x Triple Missile	10	32.5
		20 x Triple Sandcaster	20	35
	Ammunition	720 missiles		
		1440 barrels		
Fuel	34,000 tons	One Jump-3, four weeks of operation	34,000	
Cargo	Modular Cargo Hold	50,000 tons	50,000	4,500
	Cargo	3,563 tons	3,563	
176 Staterooms			704	88
o Low Berths				
Extras	Fuel Scoops			1
	Fuel Processor	All fuel in 2 days	850	42.5
	Luxuries		30	3
	Repair Drones		1000	200
	5 Armouries		10	2.5
	176 Escape Pods		88	17.6
Craft	6 90 ton Shuttles	Full scale hangars	702	140.4
Software	Jump Control/4			—
	Manoeuvre/o			—
	Library			—
	Intellect			1
	Evade/3			3
	Fire Control/5			10
	Auto Repair/2			10
Maintenance Cost (monthly)				2.6849
Life Support Cost (monthly)				0.354
Total Tonnage & Cost			100,000	32,218.5

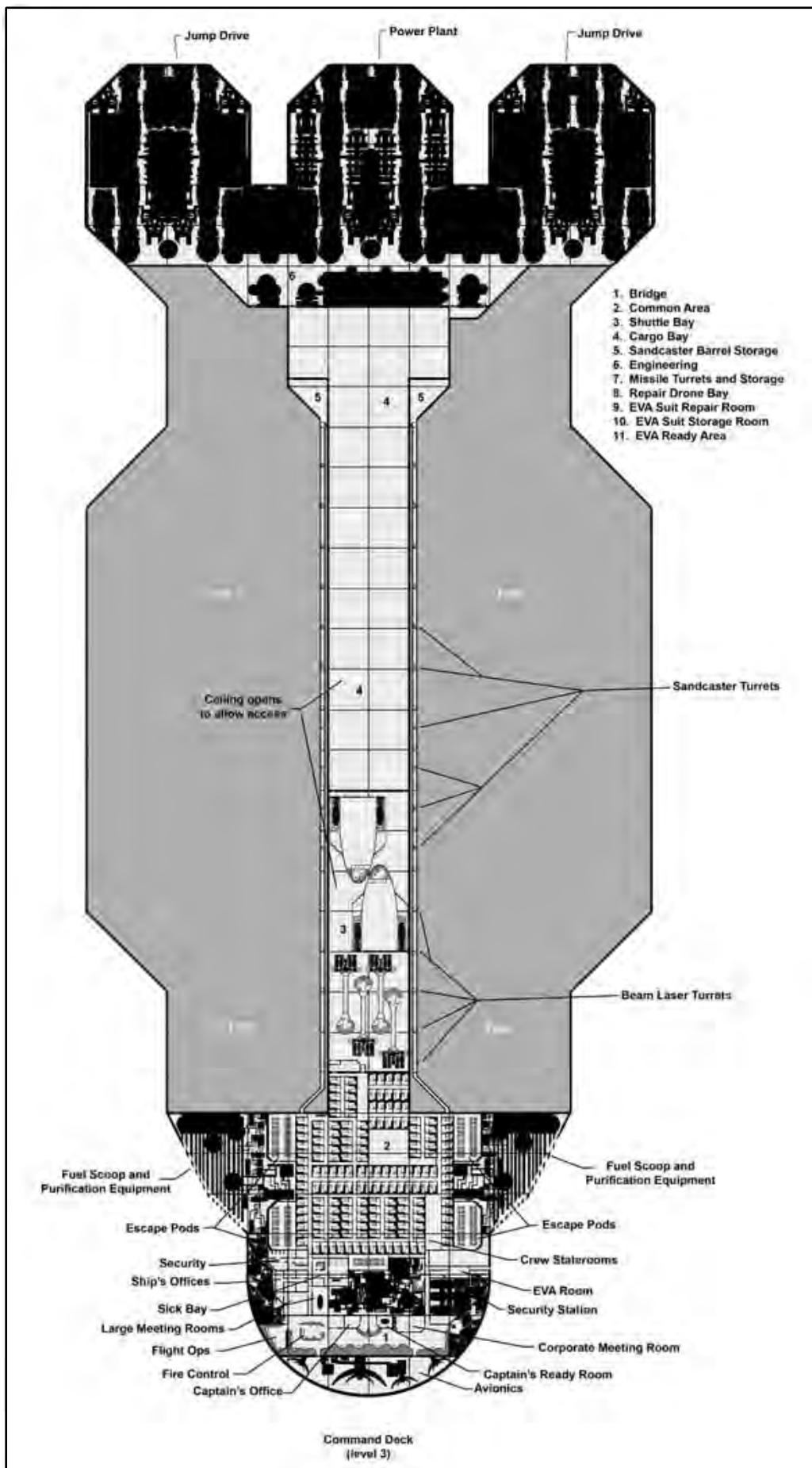
Department	Crew	Crew Damage Track
Command	26	Dead (-)
Engineering	46	Survivors (-4)
Gunnery	13	Skeleton (-2)
Flight	18	Half (-1)
Troops	0	Weakened – Starting Position
Service	102	Full
Frozen Watch	0	Battle
Total	205	Overstrength
Passenger Staterooms	60	Massively Overstrength
Low Berth Passengers	0	

	Engineering		Amidships		Main		Forward	
Hull	500		500		500		500	
Structure	500		500		500		500	
Roll	Internal	External	Internal	External	Internal	External	Internal	External
2	Hull	Crew	Hull	Crew	Hull	Crew	Hull	Crew
3	Fuel	Jump Drive	Fuel	Hull	Fuel	Hull	Bridge	Hull
4	Manoeuvre Drive	Power Plant	Hold	Hull	Hangar	Hull	Computer	Hull
5	Fuel	10 x Beam Laser Turrets	Hold	10 x Sandcaster Turrets	Hold	5 x Missile Turrets	Hold	Hull
6	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure
7	Armour	Hold	Armour	Hold	Armour	Hold	Armour	Hold
8	Hull	Structure	Hull	Structure	Hull	Structure	Hull	Structure
9	Hold	10 x Beam Laser Turrets	Hold	10 x Sandcaster Turrets	Hold	5 x Missile Turrets	Hold	Hull
10	Manoeuvre Drive	Jump Drive	Hold	Hull	Hold	Hull	Hold	Hull
11	Fuel	Power Plant	Fuel	Hull	Fuel	Hull	Fuel	Hull
12	Hull	Critical	Hull	Critical	Hull	Critical	Hull	Critical









NAVAL ADVENTURES

The traditional *Traveller* campaign starts after the characters have left their previous careers and are now wandering adventurers and free traders. In such a campaign, a character's time in the navy is just prologue, a backstory that might contribute a few skills and plot hooks. It is also possible – with a few necessary changes – to run a *Traveller* campaign where the characters are still on active service in the navy.

Rank and the chain of command become much more important in a naval campaign. Discuss with the players before the game starts about how to handle characters of different ranks, as disobeying orders and arguments over commands can turn a game into a series of court-martials and shouting matches. Often, it is easier to have all the characters at roughly the same rank, and have a non-player character in overall charge. Roleplaying games tend to work best when the characters have a great deal of freedom to accomplish their goals, which clashes with the limitations of the chain of command. Often, the best approach is to put the characters on detached duty, or in situations where they cannot rely on being told what to do by their commanding officers.

Remember that the lack of faster-than-light communication in the default *Traveller* setting means that a captain is very much on his own. It will take weeks or months for orders to arrive from his superiors, so he must use his own judgement when executing his missions.

Naval Campaign Structures

High Guard: The simplest structure is to just generate the characters normally, but instead of mustering out at the end of character creation, it is assumed that their final career is also their current position (obviously, all characters should end in a naval career, and should have roughly the same number of terms and rank). The characters should all be assigned to the same ship or base. For example, they could be the officers of a small escort vessel, or a team of special forces on a battleship, or a trusted team who regularly get sent on shore missions.

Rising Through The Ranks: In this option, start with the characters at the naval academy or on their first tour of duty. The campaign is played episodically, jumping ahead months or years between game sessions. Each game session revolves around a significant episode in the characters' careers, chronicling their rise from lowly recruits to captains and heroes. This episodic campaign lets you cover a long period of time; interstellar wars can rage across the galaxy and empires rise and fall, and the characters happen to be present for every major event and turning point in history.

These Are The Voyages...: Another option is to make a single ship the focus of the whole campaign. You could even have each player play three different characters – one lowly crewman each, one mid-ranking officer, and one of the command staff. This 'troupe-style

play' puts the decisions in the hands of the characters, but also ensures that they can get up close and personal with the action. As the ship is the centre of the game, characters can leave, be replaced or even killed without the campaign coming to a halt.

In Time Of War: While there is plenty for a naval ship to do during peacetime (see Naval Missions, below), it is in the crucible of war that heroes are forged. One classic trope is to put the characters' ship in a difficult and isolated situation, such as being lost behind enemy lines or suffer a hit to the bridge, killing the command crew and forcing the comparatively inexperienced player characters to take charge.

Shipboard Intrigue: Characters who have served four or five terms in the navy will likely have reached a high rank, and might be involved in shipboard intrigue against other officers, jockeying for another promotion or even their own command. Play up the archaic aspects of the Imperial Navy, and fill the game with swashbuckling duels and noble titles mixed with far-future technology. In this game, the dangers faced on the ship's missions are very much secondary to outmanoeuvring and outwitting rival ships and officers.

Squadron: For a really high-powered naval game, put the characters in command of one warship each as part of a squadron. This lets you run party-style adventurers in space ('*emerging from jumpspace, you see a flotilla of bandits. Roll for initiative*') and gives each player the maximum amount of individual agency. Squadron-level games work best in time of war, when the characters will be up against worthy opponents regularly.

NAVAL MISSIONS

For a randomly generated mission for a naval vessel, pick a mission type and roll on the tables below. Each table gives the initial outline of the mission, and suggestions for the next table to roll on.

Locations are random locations and worlds where the mission takes place.

Complications are problems or issues that make it more difficult to complete the mission.

Opposition is the hostile force that opposes the characters. If the Opposition is too tough for the characters, and the navy has good intelligence about the mission, then the characters may be escorted by extra friendly forces. (Of course, if naval intelligence has no information about the enemy, then the characters may jump into the maw of hell.)

Finally, *twists* are developments that completely recast the initial mission briefing in a new light.

Patrol

d6	Mission Briefing	Also roll on...
1	Patrol a set of systems in this subsector.	Location (space) table for the most interesting system visited.
2	There is concern about a lack of naval presence along certain trade routes. Patrol along those routes, showing the strength of the Imperium.	Complication (shipboard) table and opposition (light).
3	There have been reports of raiders and pirates. Patrol and eliminate any enemies encountered.	Opposition (medium) for the strength of the pirates.
4	Patrol along the border with the enemy (or rival sector).	Complication (external) for enemy activity.
5	Proceed to the designated system, visiting the following worlds en route.	Complication (external) at a location (planetary).
6	Continue your patrol.	Twist.

Training

d6	Mission Briefing	Also roll on...
1	Proceed to the naval base at the designated world and pick up a cadre crew. Demonstrate standard naval operations.	Optionally, roll on the Complications (shipboard) for problems encountered.
2	Proceed to the naval base at the designated world, pick up a cadre crew and execute another mission.	Roll on the twist table for the cadre, and roll again for the mission type.
3	Your ship has been refitted. Proceed on a shakedown cruise to ensure there are no outstanding problems.	Roll on the Complications (shipboard) for issues caused by the refit, and Opposition (medium) for dangers encountered.
4	As part of a training mission, you are ordered...	Roll again for the simulated mission, and roll on the twist and Opposition (serious) for the simulated problems. As the mission is simulated, all damage and threats are virtual.
5	As part of a training mission, you are ordered...	Roll again for the simulated mission, and roll on the Location (space) and Opposition (serious) for the location of an ambush that takes place midway through the mission.
6	You are ordered to participate in war games against other naval forces...	Roll on the Opposition (heavy) table for the forces arrayed against the players' vessel(s).

Ceremonial

d6	Mission Briefing	Also roll on...
1	Provide an escort for an important noble.	Location (space or planetary) for the noble's destination.
2	Provide a naval presence for a festival or other event.	Roll on the Complications (external).
3	Courier an important message.	Roll on the Opposition (medium) or Complications (shipboard).
4	Provide a naval presence at the memorial site for a famous past battle.	Roll on the Location (space) table for the memorial site.
5	Your ceremonial duties at a world are cover for another mission.	Roll again for the other mission, which must be undertaken secretly.
6	An officer on board is being promoted, and you are to provide due honours.	Twist.

Escort

d6	Mission Briefing	Also roll on...
1	Escort a convoy of trade ships through hostile space.	Roll on the Location (space) table for ambush location.
2	Escort a tanker squadron.	—
3	Escort a cargo vessel.	Optionally, roll on the Twist table.
4	Escort a flotilla of refugee ships.	Roll on the Location (planetary) for their destination.
5	Escort a damaged warship back to base.	The same enemies who damaged the warship are still out there; roll on the Opposition (heavy) table.
6	Escort an important courier.	Optionally, roll on the Twist table.

Interdiction

d6	Mission Briefing	Also roll on...
1	A plague has erupted on a world. Until a cure is found, no vessel may leave that world.	Opposition (light) for the vessels trying to escape that world.
2	A deposit of value minerals has been located on a primitive world. Prevent miners from landing.	Roll on the Location (planetary) for the deposit location.
3	A civil war in a system must be contained, without giving preference to either side – the navy cannot be allowed to intervene in internal disputes.	Roll on the Opposition (medium) twice for the forces on both sides.
4	Imperial intelligence is engaged in a purge of enemy agents at an important world. Ensure none escape by blocking all civilian traffic from the system.	Roll on the Complications (external) table.
5	Upcoming operations require a news blackout. Interdict any civilian x-boats or mail carriers.	—
6	Patrol an interdicted system and ensure it is undisturbed.	Twist.

Rescue

d6	Mission Briefing	Also roll on...
1	A civilian vessel has gone off course. Search for survivors.	Roll on the Location (space) for where the ship is eventually found.
2	A naval outpost has suffered a natural disaster, and crew are trapped on board. Rescue them before life support runs out.	Roll on the Location (planetary) for the location of the base.
3	The wrecked hulk of a long-lost warship has been found, crashed on a planet. Find out what happened to it.	Roll on the Location (planetary) for the crash site, and on the Complication (shipboard) for whatever happened on the ship prior to the crash.
4	A civilian vessel has been attacked by pirates. Rescue it and destroy the pirates.	The pirates are Opposition (medium).
5	A world is suffering; provide humanitarian relief.	Roll on Complications (external).
6	A squadron has suffered serious damage; recover any survivors or salvageable ships.	—

Support

d6	Mission Briefing	Also roll on...
1	Bring supplies to a naval base.	Complications (shipboard).
2	Bring supplies to a war zone.	Opposition (medium).
3	The navy suspects a captain of incompetence or treachery; you are to spy on him, in the guise of supporting his next mission.	Roll again for the captain's mission.
4	A damaged ship needs repair or resupply.	Roll on the Complications (shipboard) for the cause of the damage.
5	A besieged world needs relief.	Opposition (heavy) and Complications (external).
6	Bring supplies to a naval base.	Twist.

Scouting

d6	Mission Briefing	Also roll on...
1	Visit a series of border systems.	Optionally, Opposition (light).
2	Intercept enemy communications.	Location (space) for the source of enemy comms.
3	Observe enemy traffic.	Twist.
4	Locate an enemy vessel that jumped away before it could be finished off.	The enemy vessel is Opposition (significant).
5	Search for enemy activity ahead of the main fleet.	—
6	Locate but do not engage an enemy depot or fortress.	Opposition (overwhelming).

Strike

d6	Mission Briefing	Also roll on...
1	Locate and destroy an enemy warship.	—
2	Destroy an enemy supply depot.	Complications (shipboard).
3	Engage an enemy battle group.	Location (space) for the site of battle.
4	Harass enemy supply lines.	—
5	Covertly destroy an enemy base.	Location (planetary) for the site of the base.
6	Seize a lightly-held world.	Opposition (significant).

Assault

d6	Mission Briefing	Also roll on...
1	Capture a designated world.	Opposition (heavy).
2	Secure a partially pacified world.	Opposition (heavy).
3	Bombard an enemy planetary fortress.	Opposition (heavy).
4	Break the siege of an allied planet.	Opposition (heavy).
5	Engage and destroy an enemy fleet.	Opposition (heavy).
6	Push into enemy territory.	Opposition (overwhelming).

Special

d6	Mission Briefing	Also roll on...
1	An enemy vessel has been sighted preying on civilian shipping. Locate and destroy it.	—
2	We have captured an enemy vessel; your crew are to transfer to that vessel and go behind enemy lines.	Roll again for the vessel's original mission, and roll on the Strike mission for the new undercover mission.
3	A legendary 'flying dutchman' has been sighted. Investigate.	—
4	Attempt first contact with a previously unknown species.	—
5	An ancient artefact has been located. Investigate and secure.	Roll on a Location table for the artefact's resting place.
6	One of our captains has gone rogue. Hunt him down.	—

Mission Type by Ship

d6	Scout	Battleship/Dreadnought	Cruiser	Escort	Carrier	Auxiliary
1	Patrol	Patrol	Patrol	Patrol	Training	Training
2	Training	Training	Training	Training	Ceremonial	Support
3	Rescue	Strike	Interdiction	Interdiction	Interdiction	Support
4	Support	Strike	Strike	Rescue	Special	Rescue
5	Scouting	Assault	Support	Support	Strike	Training
6	Scouting	Special	Interdiction	Scouting	Assault	Support

LOCATIONS

2d6	Space	Planetary
2	Corona of a star	Ruined city
3	Hot inner world	Hostile environment
4	Deep space	Inhabited city
5	Nebula	Desert
6	Asteroid Belt	Ocean
7	Near Orbit	Temperate Land
8	Deep space	Forest
9	Orbit of a gas giant	Icecap
10	Atmosphere of a gas giant	Jungle
11	Frozen outer world	Deep Ocean
12	Oort cloud	Underground

COMPLICATIONS

2d6	Shipboard	External
2	Mutiny – a cabal of young officers attempt to take over the ship.	Alien inference – another alien race or vessel is present and may interfere.
3	Sabotage – a key internal system* is sabotaged.	Unexpected technology – the target of the mission has an advanced piece of technology, such as a Black Globe generator or other ancient weapon.
4	Bad morale – reduce the crew skill by 1 for the duration of the mission.	Unexpected danger – a previous unsuspected threat such as a disease or natural disaster interferes with the mission.
5	Bad communication – the mission briefing is incorrect in some way.	Political Interference – a noble or other politician makes trouble for the characters.
6	Missing supplies – the ship is running low on fuel, food, ammunition or some other important item.	Third Party – some other group is interested in the success or failure of the mission.
7	System failure – a key system* breaks down. 1–3: External system; 4–6: Internal system.	Something unusual, such as a freak weather condition, local festival, solar flare, radio-jamming interference or meteor swarm occurs at the same time as the mission.
8	Unrepaired damage; the ship was damaged in a previous mission, and has not yet implemented repairs.	Conspiracy – unexpected people are involved with the target of the mission.
9	Interference – someone on the ship, such as a meddling noble or overbearing ambassador causes problems.	Other Interference – a non-political group such as civilian protestors or religious group objects to the mission and attempts to interfere.
10	Illness – a strange sickness sweeps through the crew, temporarily reducing it by one size category.	Hostile Environment – the mission takes place in dangerous circumstances (blizzard, solar storm and so on)
11	Disaster – an unrelated problem, such as a micrometeoroid impact, strikes the ship.	There are enemy ships nearby. Roll on the Opposition (heavy) table. The ships may attempt to interfere with the mission.
12	Treachery – one of the ship's crew is an agent of an enemy power, and acts to sabotage the mission.	Attack! The characters' ship is ambushed!

*: Roll on the appropriate Damage table for the characters' ship.

OPPOSITION

d6	Light	Medium	Significant	Heavy	Overwhelming
1	10%	50%	90%	150%	200%
2	20%	60%	100%	160%	250%
3	30%	70%	110%	170%	300%
4	40%	80%	120%	180%	350%
5	50%	90%	130%	190%	400%
6	60%	100%	140%	200%	500%
Examples	Scouts, Merchants, civilian vessels	Mercenary cruisers, fighters, system defence boats	Escorts, auxiliary capital ships	Cruisers, Escorts	Battleships, Carriers, Dreadnoughts

The percentage value is the tonnage of the enemy ships relative to the characters' vessel.

TWISTS

d6	Twist
1	Not what it seems – some element of the mission is different to what the navy believes. A civilian ship might be a secret enemy vessel, or refugees might be religious fanatics.
2	Ultior motive – the officer who issued the mission has his own motive for doing so.
3	Cover mission – this mission is actually a cover for another mission being undertaken by another vessel. The Player Characters are to be as blatant about their activities as possible.
4	Betrayal – someone involved in the mission is an enemy agent.
5	Secret Mission – this mission must be undertaken covertly, and no support will be available.
6	Suicide Mission – this mission is secretly a distraction for the enemy, meant to draw out their forces.



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