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	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. However you take the blame when your ship ends up firing real rounds, causing damage and loss of life to the 'enemy' force.
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 manoeuvrings, but end up on the wrong side of an internal dispute.

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

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.

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.

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.

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 ammuntion. 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.

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 0 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/0 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 0 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/0 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

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 p111 core 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.