

BOOK 2:  
SPACECRAFT & WORLDS

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**TRAVELLER**

# TRAVELLER

## BOOK 2: SPACECRAFT AND WORLDS

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# C H A P T E R - O N E

# ENCOUNTERS AND DANGERS

When adventuring through the universe, a Traveller has a great deal more to be worried about than finding himself in the middle of a battle. This chapter covers the dangers and hazards that can be found among the stars, and how Travellers can avoid them.

## ENVIRONMENTAL DANGERS

Most life-bearing worlds feature biology completely incompatible with alien visitors, so Travellers are utterly unaffected by their native pathogens. The exceptions are typically planets where everything is inimical to human life. Alien diseases that affect humans are comparatively rare, most of which are mutations or engineered variants of diseases originally from Earth. Panacea drugs can aid the immune system resist infection on unfamiliar worlds. Poisons are rarer, but more dangerous – injecting an unfamiliar chemical into your bloodstream is never a good idea.

### Diseases

Diseases reduce a Traveller's characteristics, starting with END. The Traveller must make a series of END checks to resist the effects of the disease. If the Traveller fails an END check, he takes the listed damage and must make another END check a few hours or days later, depending on the Interval of the disease. Once an END check has been passed, the Traveller has fought off the disease. At the referee's discretion, some more tenacious diseases may require multiple successful checks to shake off.

Disease	END check Difficulty	Damage	Interval
Anthrax	Very Difficult (12+)	2D	1D days
Biological Weapon	Formidable (14+)	3D	1D hours
Pneumonia	Average (8+)	1D	1D weeks
Regina Flu	Routine (6+)	1D-2	1D days

### Falling

A Traveller who falls on a 1-gravity world suffers 1D damage for every two metres he falls. High- or low-gravity worlds (see Gravity opposite) will increase or decrease the damage by 1D for every four metres fallen. A Traveller who make a successful Athletics check can reduce the distance fallen for the purposes of calculating damage by a number of metres equal to the Effect of his check.

### Fatigue

A Traveller can become fatigued in several ways.

- After staying awake for a number of hours greater than his END + 18.
- After performing heavy labour for a number of hours greater than his END.
- After making a number of consecutive melee attacks greater than his END in a single combat.

A fatigued Traveller suffers a Bane to all checks until he rests. At the referee's discretion, continuing exhausting work while already fatigued can result in the Traveller falling unconscious. Various drugs and treatments can relieve fatigue.

### Poisons

Poisons operate in the same way as diseases, but generally work much faster and often have a wider range of effects.

Disease	END check Difficulty	Damage	Interval
Arsenic	Difficult (10+)	2D	1D minutes
Tranq Gas	Difficult (10+)	Unconscious	1D seconds
Neurotoxin	Very Difficult (12+)	1D INT	1D seconds

### Gravity

Grav plates are common on spacecraft and space stations and so Travellers may spend most of their lives in comfortable Earth-like gravity (1G). However, grav plates can malfunction and once a Traveller steps off their ship onto the surface of a world, they become subject to the often brutal effects of gravity.

**High Gravity:** Environments that have a gravity of 1.4 G or more (typically worlds of Size 10) are classed as being High Gravity. Humans find high-gravity worlds unpleasant. Especially high-gravity worlds require the use of pressured or powered suits to support the human frame. Travellers on high-gravity worlds suffer DM-1 to all skill checks until they acclimatise, a process which takes 1D weeks. Travellers with the Athletics (strength) skill acclimatise automatically.



**Low Gravity:** Environments that have a gravity of 0.7 G or less (typically worlds of Size 6 or smaller) are classed as being Low Gravity. Humans tend to find life on low-gravity worlds to be initially pleasant, but regular exercise regimes and medicinal supplements are required to prevent bone and muscle degradation. Those who spent too long on low-gravity worlds cannot tolerate higher gravities. Travellers on low-gravity worlds suffer DM-1 to all physical skill checks until they acclimatise, a process which takes 1D weeks. Travellers with the Athletics (dexterity) skill acclimatise automatically.

**Zero Gravity:** A Traveller in a zero gravity situation suffers all the effects of low gravity (the world Size is assumed to be 0). In addition, he must be careful to watch for things that can affect his momentum – most notably, firing weapons that have recoil.

Every time the Traveller uses a ranged weapon that does not have the Zero-G trait or any close combat weapon, he must make an Average (8+) Athletics (dexterity) check or not only automatically miss his target but start to spin helplessly out of control.

A Traveller spinning out of control in zero gravity may regain control with an Average (8+) Athletics (dexterity) check.

## Radiation

Radiation is a constant danger throughout space. Spacecraft hull materials shield against most radiation; coupled with the added protection offered by hydrogen fuel tanks lining the inner hull means that the exposure suffered by most spacers is only a few times that of a planetside. Travellers in vessels flying too close to a star or with breached hulls or damaged reactors do risk exposure, and the presence of harmful radiation on worlds or in combat means Travellers must be wary when they step off their ships.

Radiation exposure is measured in rads. Once a Traveller has absorbed a certain number of rads, he will suffer the effects of radiation. One problem with radiation exposure is that while physical symptoms can be treated and may heal, the cumulative effects of the radiation itself never go away. The Traveller's rads must be kept track of and further exposure adds to what the Traveller is already suffering until a deadly level is reached. Accumulated rads can only be removed by using anti-rad drugs.

Radiation effects are suffered each time a Traveller is exposed to radiation, and as a result of cumulative rads over time. Thus a Traveller who has absorbed 75 rads in the past and subsequently recovered from the effects, who then absorbs another 20 rads from a solar flare, now has a total of 95 rads, whether he suffers any

serious effects this time or not. He is fast approaching a moderate dose, as shown on the Radiation Effects table.

## Radiation Effects

Immediate Radiation Exposure		Cumulative Radiation Exposure	
Exposure	Effects	Exposure	Effects
50 rads or less	None	50 rads or less	None
51-150 rads	1D damage, Nausea (-1 to all checks until medical treatment received)	51-150 rads	None
151-300 rads	2D damage	151-300 rads	-1 END permanently
301-500 rads	4D damage, hair loss	301-500 rads	-2 END permanently
501-800 rads	6D damage, sterile	501-800 rads	-3 END permanently
801 rads or more	8D damage, internal bleeding	801 rads or more	-4 END permanently

Travellers exposed to a weapon with the Radiation trait will receive a one-time dose of radiation. Entering a radioactive area or being exposed to a leak or solar flare will cause exposure each round or hour respectively.

## Radiation Exposure

Radiation Source	Rads Received
Minor reactor leak	2D/hour
Serious reactor leak	2D/20 minutes
Minor solar flare	1D x 100/hour
Major solar flare	3D x 100/hour
Radiation weapon	2D x 20

Vacc suits and other measures of protection reduce radiation exposure, as shown on page 83 of *Book 1: Characters & Combat*. The hull of a spacecraft decreases the radiation exposure of those inside by 500.

Solar flares are therefore still dangerous even to a starship, so when a serious flare is detected vessels usually try to hide behind asteroids, moons, etc. Orbital stations in systems with a lot of flare activity have layers of radiation-absorbent materials and personnel sanctuaries with even more protection, and can ride out even the worst flares. This level of protection is too bulky for all but the most specialised starships.

## Suffocation

A spacecraft or self-contained, sealed structure with power can usually sustain life support for one person per stateroom for one month comfortably, and for six months at a stretch (number of staterooms x 5,000



## Temperature Table

Heat	Effect	Cold	Effect
50° (very hot desert)	1D/hour	-25° (Arctic)	1D/hour
200° (~Mercury)	1D/round	-50° (~Mars)	2D/hour
500° (~Venus)	2D/round	-200° (~Pluto)	1D/round
Burning Torch	1D/round	Freezer Berth	1D/round
Welding Torch	2D/round	Liquid Nitrogen	2D/round
Inferno	3D/round	—	—

person/hours). Without power, this drops to two weeks at most. Various shelters will list the amount of air and life support available if they differ.

Without life support, a Traveller begins to suffocate, suffering 1D damage each minute. A Traveller who is utterly without air (such as one who being smothered or strangled, or who has been thrown out of an airlock) suffers 1D damage each round instead.

## Temperature

Unusually hot or cold worlds can cause damage (starting with END) unless the Travellers are suitably protected. Temperatures are in Celsius.

## Vacuum

If a Traveller finds himself outside of a spacecraft without a vacc suit, in the cold vacuum, he is in very big trouble.

Bubbles will start forming in the bloodstream, any air in the lungs will cause them to explode, eyeballs will burst from their sockets and skin will stretch as the body expands. In short, the Traveller will have seconds at best to get back to safety.

Any Traveller exposed to vacuum will suffer a cumulative 1D damage every round. Thus, the Traveller will suffer 1D damage in the first round, 2D damage in the second round, 3D damage in the third, and so on.

In addition, the Traveller will also absorb 2D x 10 rads every round if they are actually in space, rather than a planetside vacuum chamber.

## Weather

High winds and torrential rain inflict DM-1 to all skill checks made in the teeth of the weather, depending on the intensity of conditions. Unusual weather effects include flammable methane clouds, rain of sulphuric acid, mists of poisonous gas, flash floods, and carbon dioxide glaciers subliming to gas in the heat of the Traveller's footsteps...

## HEALING

With all the dangers present throughout the galaxy, it is inevitable that Travellers will get hurt. Fortunately, there are several options to heal and repair oneself.

There are two forms of healing – medical treatment and natural healing. Note that failed Medic checks can easily end up causing the patient more damage - we recommend you see trained doctors only!

## Medical Treatment

**First Aid:** Applying first aid restores a number of characteristic points equal to the Effect of the Medic check. Points restored by first aid are divided as desired among all damaged physical characteristics. First aid must be initiated within one minute of the injury.

**Surgery:** A Traveller who still has three damaged characteristics after first aid has been applied requires surgery. Surgery restores characteristic points just like first aid but if the check is failed the patient loses more characteristic points equal to 3+ the Effect of the Medic check. Surgery requires a hospital or sickbay. Once one characteristic is back to its maximum level the patient can benefit from medical care.

**Medical Care:** A Traveller who has only one or two damaged characteristics after first aid has been applied, or who has had one of his three physical characteristics restored to normal through surgery, can benefit from medical care. Medical care restores 3+ the Traveller's END DM + the doctor's Medic skill in characteristic points per day, divided evenly among all damaged characteristics. Medical care requires a hospital or sickbay and for the Traveller to undergo full bed rest.

In high technology hospitals, standard procedure in most cases is to use Medicinal Slow to hasten healing.

*For example, Morn is mauled by an alien predator while exploring a strange moon. He is able to drive the predator off with his pistol, wounding it. Morn has suffered damage to all three of his characteristics – he has lost 10 END, 5 DEX and 3 STR. Kathya applies first aid, bringing Morn's STR back up to its maximum level. With only two characteristics now wounded, Morn qualifies for medical care and, once in their ship's sickbay, is quickly restored to health.*

**Augmentation and Medical Care:** Cybernetic or genetic augments can interfere with medical treatment. All medical care or surgery Medic checks treating a Traveller suffer a negative DM equal to the difference in



Technology Level between the medical facility and the highest relevant implant. For example, a Traveller with TL13 Enhanced Vision being treated in a TL10 hospital would give DM-3 to the surgeon's Medic checks.

**Mental Characteristics:** Other than Psionic Strength, characters may also suffer damage to their INT or EDU (the latter reflecting loss of memory). Unless otherwise specified, each mental characteristic heals at a rate of one point each per day.

## Natural Healing

An injured Traveller regains a number of characteristic points equal to his 1D + END DM per day of full rest.

A Traveller who requires surgery only regains characteristic points equal to his END DM per day of rest, which means that the Traveller may never heal naturally and will even get worse if his END DM is currently negative (and it probably will be...).

## Unconsciousness

An unconscious Traveller may make an END check after every minute. If successful, he regains consciousness. If he fails, he must wait another minute before trying again, this time with a cumulative DM+1 for every previous check failed.

# ENCOUNTERS

Throughout their adventures, Travellers will have the opportunity to meet many strange animals, aliens, robots and other potential hostiles. When the referee determines an encounter has occurred, it will be important for him to know exactly where any potential hostiles are and when players will become aware of them.

During encounters, a range band system is used for convenience, as shown on the Range Band table.

## Range Band

Range	Distance to Target
Close	Up to 5 metres
Short	5-10 metres
Medium	11-50 metres
Long	51-250 metres
Very Long	251-500 metres
Distant	501-5000 metres
Very Distant	Over 5 kilometres

When an encounter occurs, the referee should roll on the Encounter Distance table below to determine when the players might first become aware of the potential danger. There are a variety of modifiers given here to reflect specific situations but the referee should feel free

to further modify the results based on circumstances. For example, if the players are being tracked by hit men in a crowded city street, they are unlikely to spot them at Distant range (over 500 metres). However, this could be entirely possible if the hit men are not on foot but flying above the street in an air/raft...

## Encounter Distance

2D	Range Band
2 or less	Close
3	Short
4-5	Medium
6-9	Long
10-11	Very Long
12 or more	Distant

Apply the following modifiers.

Clear Terrain	DM+3
Forest or Woods	DM-2
Crowded Area	DM-2
In Space	DM+4
Target is a Vehicle	DM+2 for every 10 Hull or part of
Travellers actively looking for danger	+ highest Recon skill

Under normal circumstances, Travellers will automatically spot the target as an item of interest (at least) and be able to start taking appropriate action. However, if the target is attempting to remain hidden, perhaps get closer before launching an attack or simply to remain in place to observe passers by, the Travellers will need to spot the target before they can take any action against it.

This is normally accomplished by a simple Recon check opposed by the target's Stealth. Use of basic optical devices by the Travellers or camouflage by the target can impose modifiers of DM+1 to +3 at the referee's discretion.

However, in the technological universes of Traveller, there is always the option to use sophisticated electronic sensors, some of which are detailed in the Equipment chapter (*Book 1: Characters & Combat*).

When using any kind of sensor, the Electronics (sensors) skill is used, opposed by the target's Stealth. More advanced uses of sensors and stealth are detailed in the *Vehicle Handbook*.

# ANIMALS

Many worlds in the galaxy are capable of bearing life and across the galaxy evolution (or genetic engineering) has produced bizarre creatures, forming complex ecosystems very different from those of the worlds the Travellers are used to.



# JUNGLE HOWLER

ANIMAL	HITS	SPEED
Jungle Howler	36	8 m
SKILLS	Athletics (dexterity) 1, Melee (claws) 2, Recon 1, Stealth 2, Survival 1	
ATTACKS	Claws (3D)	
TRAITS	Armour (+3), Heightened Senses	
BEHAVIOUR	Carnivore, Pouncer	



Animals are defined by a handful of characteristics as shown in the example here, a jungle howler – a monkey-like predator with sharp claws that attacks by leaping onto prey from treetops.

**Hits:** How much damage the animal can sustain before it is killed. All damage is applied to Hits, rather than STR, DEX and END as for Travellers. When an animal's Hits are reduced to zero, it is dead.

**Speed:** How far the animal can move in a single combat round with a Minor Action.

**Skills:** Any skills the animal is able to perform are listed here, together with their DM. Unless otherwise stated, all animals have Athletics 0 and Survival 0.

**Attacks:** Any attacks the animal is capable of are listed here, together with the damage they deal.

**Traits:** These are special rules the animal has which determine its abilities beyond Hits, Skills and Attacks. Some animals are Amphibious, for example, while others are Very Large.

**Behaviour:** Animals tend to act in very specific ways according to their place within an ecosystem, and will aid a referee in determining its actions. An animal's behavioural characteristics are detailed further on page 11.

## Traits

The following traits may be applied to animals of the referee's creation.

**Alarm:** When panicked or under threat, this animal emits a powerful screech, odour or makes a bright visual display, alerting others of its kind to danger. At the



## Animal Hits

The Hits characteristic provides a quick and easy method for a referee to keep track of whether an animal is alive or dead. For most encounters, this will be sufficient but situations may arise when the players need to have a little more detail, such as when they are hunting.

**Driven Off:** At the referee's option, an animal may be driven off and forced to retreat if it is reduced to half of its Hits or less.

**Unconscious:** If an animal is reduced to a tenth of its starting Hits or less, it will be rendered unconscious (and seriously injured!).

**Destroyed:** If an animal suffers enough damage to reduce its Hits to a negative equal to or less than its starting Hits, its body is completely destroyed and will have little or no value for harvesting hides, meat or other materials.



referee's option, this will either cause all animals of the same type in the immediate area to flee, or will bring an additional 2D of them into combat.

**Amphibious:** The animal is equally at home on land or in the water. It will not suffocate while submerged and its movement is not affected underwater.

**Armour (+X):** The animal has dense layers of fat, horny plates or some other form of physical protection. It has an Armour protection score equal to the figure shown in the Armour trait.



**Bioelectricity (+X):** The animal naturally generates a powerful electric current which is discharged when it makes an attack. With each successful attack, the animal will cause an additional amount of damage with the Stun trait, as listed in its Bioelectricity trait.

**Camouflaged:** The animal has physical adaptations that allow it to blend into its environment, such as chameleonic skin or psionic shielding. It gains DM+2 to all Stealth checks.

**Diseased (Difficulty/Damage/Interval):** The animal is a carrier of disease and will infect any creature it comes into physical contact with. At the referee's option, merely being in the animal's lair may cause exposure. The difficulty, damage and interval of the disease is noted within the Diseased trait.

**Echolocation:** This animal has organs adapted to emit high-frequency sounds, which it uses to pinpoint objects and "observe" its surroundings with high precision. It can operate in complete darkness, though two-dimensional details (such as writing on a page) cannot be made out. Echolocation can operate in noisy environments, but can be completely blocked by sounds operating at similar high frequencies.

**Fast Metabolism (+X):** The animal has a heightened metabolism and very fast reactions. It gains a DM to initiative rolls equal to the figure shown in the Fast Metabolism trait.

**Flyer (X):** The animal has wings, air sacs, or some other method of gaining altitude and soaring. When flying, it may travel at a maximum Speed Band listed in the Flyer trait.

**Heightened Senses:** The animal has better hearing and sense of smell than humans. It receives DM+1 to any Recon and Survival checks it has to make.

**IR/UV Vision:** The animal views the world at a greatly extended electromagnetic range, encompassing at least infrared or ultraviolet wavelengths, and perhaps more. This allows it to see clearly in darkness and, at the referee's option, it may notice certain electromagnetic emissions from the equipment of Travellers.

**Large (+X):** The animal is extremely large and presents a huge target. All ranged attacks made against the animal gain a DM equal to the score listed in the Large trait.

**Poison (Difficulty/Damage/Interval):** The animal's attacks are poisoned, making them much deadlier. The difficulty, damage and interval of the poison is noted within the Poison trait.

**Psionic (X):** The animal has a PSI characteristic equal to the score listed in the Psionic trait. The referee should determine which talents it has access to as shown in the Psionics chapter.

**Slow Metabolism (-X):** The animal has a lethargic metabolism and very slow reactions. It suffers a DM to initiative rolls equal to the figure shown in the Fast Metabolism trait.



## How Big a Beast?

When creating a new animal for an encounter, a referee simply has to decide on a concept for the creature, assign an appropriate amount of Hits and attacks, and then record any desired Traits and Behaviour.

The number of Hits and attacks an animal can have may vary greatly though it will be based loosely on size. A referee need not be bound by the suggestions here and can vary Hits as he sees fit. After all, an ostrich is taller than a human but is relatively lightweight and so would have less Hits. A gorilla is of a similar size to a human but is far bulkier and so would have more Hits. However, the Animal Size table below gives some examples of various animals and suitable Hits and Large/Small Traits that the referee can base his own creations upon.

Remember, these are just guidelines. A giant floating gaseous jellyfish may be larger than a dinosaur (Large +6) but have less Hits (perhaps 12 or 14) than an average human...

Hits	Trait	Damage	Animal
1-2	Small (-4)	1	Mouse or Rat
3-5	Small (-3)	D3	Cat or Raccoon
6-7	Small (-2)	D3	Badger or Dog
8-13	Small (-1)	1D	Chimpanzee or Goat
14-28	-	1D	Human
29-35	Large (+1)	2D	Cow or Horse
36-49	Large (+2)	3D	Shark
50-70	Large (+3)	4D	Rhino
71-90	Large (+4)	5D	Elephant
91-125	Large (+5)	6D	Carnosaur
125 or more	Large (+6)	7D	Sauropod or Whale

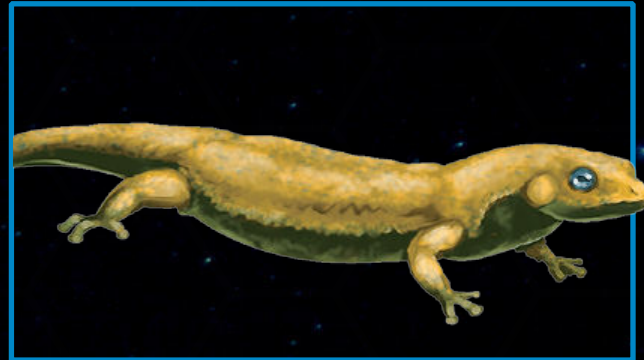




## SKITTERER

The skitterer is a small, nervous lizard that feeds on leaves.

ANIMAL	HITS	SPEED
Skitterer	8	9 m
<b>SKILLS</b>	Athletics (dexterity) 1, Melee (bite) 0, Recon 0, Stealth 2, Survival 2	
<b>ATTACKS</b>	Bite (1D)	
<b>TRAITS</b>	Armour (+3), Fast Metabolism (+2), Small (-1)	
<b>BEHAVIOUR</b>	Herbivore, Grazer	



## LIVING NET

This is a slow drifting, diffuse net that captures microorganisms in the ocean.

ANIMAL	HITS	SPEED
Living Net	43	1 m
<b>SKILLS</b>	Athletics (dexterity) 1, Recon 2, Survival 3	
<b>ATTACKS</b>	None	
<b>TRAITS</b>	Large (+1)	
<b>BEHAVIOUR</b>	Herbivore, Grazer	



## RAPTOR LIZARD

This feathery lizard stands a little under a metre tall and weighs up to 15 kg. While it has claws on the ends of its wings, its bite is vicious. It blends into forests and jungle environments extremely well and it is not uncommon for a Traveller to stand right next to a raptor lizard and not know it until bitten on the leg. Seeing a single raptor lizard by itself is a rare occurrence, and they tend to hunt in packs. Raptor lizards can fly but are clumsy in the air. They prefer to run and chase their prey, flying only as a means of escape or gaining a position of advantage just before striking.

ANIMAL	HITS	SPEED
Raptor Lizard	12	4 m
<b>SKILLS</b>	Athletics (dexterity) 1, Melee (unarmed) 2, Recon 1, Stealth 4, Survival 2	
<b>ATTACKS</b>	Bite (1D+1)	
<b>TRAITS</b>	Armour (+1), Camouflaged, Flyer (idle), Small (-1)	
<b>BEHAVIOUR</b>	Carnivore, Chaser	





## SCOURGE

The scourge is a vicious flyer with razor-sharp claws. It is found in mountainous terrain, soaring on rising air currents while searching for prey.

ANIMAL	HITS	SPEED
Scourge	5	2 m
<b>SKILLS</b>	Melee (claws) 1, Recon 1	
<b>ATTACKS</b>	Claws (1D)	
<b>TRAITS</b>	Armour (+1), Flyer (very slow), Small (-2)	
<b>BEHAVIOUR</b>	Omnivore, Hunter	



## SIRENE GEEST WORM

Though referred to as a worm, this tortoise-sized creature is characterised by a special bony shell grown from its mouth which acts as its shield. Residing in this maw is a collection of worms whose purpose is to bring scavenged food to the creature. Since it has no legs, the worms also push and pull on the shell to move it around. Sirenes are telepathic and will use suggestion to lure nearby Travellers into killing themselves. Worms are then released from the maw to slowly dissect the victim and carry food back to the maw. Sirenes are typically found behind objects and never out in the open; air ducts on ships are a favourite spot.

ANIMAL	HITS	SPEED
Sirene Geest Worm	12	1 m
<b>SKILLS</b>	Deception 3, Recon 1, Stealth 2, Telepathy 2	
<b>ATTACKS</b>	None	
<b>TRAITS</b>	Armour (+2), Camouflaged, Psionic (3), Slow Metabolism (-2)	
<b>BEHAVIOUR</b>	Carnivore, Siren	



## THUNDERER

These are slow, ponderous tripeds who use their great bulk to drive off threats.

ANIMAL	HITS	SPEED
Thunderer	54	10 m
<b>SKILLS</b>	Melee (bite) 1, Persuade 2, Survival 2	
<b>ATTACKS</b>	Bite (3D)	
<b>TRAITS</b>	Armour (+2), Large (+2), Slow Metabolism (-4)	
<b>BEHAVIOUR</b>	Intimidator, Scavenger	





**Small (-X):** The animal is very small and presents a difficult target. All ranged attacks made against the animal suffer a DM equal to the score listed in the Small trait.

## Behaviour

Regardless of their world of origin or biochemistry, the majority of creatures fall into the following categories; Herbivores, Omnivores, Carnivores and Scavengers. These categories are further broken down into other categories, such as Grazers or Filters. A Carnivore that hunts by ambushing its prey will be a very different encounter to one that is part of a pack.

Terran creatures that exemplify these behaviours are noted in brackets after the descriptions below. Suggested Traits and skills are noted after the description – the exact level of skills varies depending on the particular creature as defined by the referee.

**Carrion-Eater (vulture):** Scavengers which wait for all other threats to disperse before beginning. Carrion-eaters have Recon.

**Chaser (wolf):** Animals which kill their prey by attacking and exhausting it after a chase. Chasers have Athletics (dexterity and/or endurance).

**Eater (army ant):** Eaters will eat anything they encounter, including Travellers.

**Filter (earthworm):** Herbivores which pass their environment through their bodies are termed filters. Unlike grazers, which move to food, filters move a flow of matter through themselves and filter out the food.

**Gatherer (raccoon, chimpanzee):** Gatherers are herbivores that collect and store food. Gatherers have Stealth.

**Grazer (antelope):** Grazers move from food source to food source, often in large packs. Their primary form of defence tends to be fleeing danger.

**Hunter (baboon):** Opportunistic predators that stalk easy prey. Hunters have Survival.

**Hijacker (lion):** Scavengers which steal the kills of others through brute force or weight of numbers are hijackers.

**Intimidator (coyote):** Scavengers which establish their claim to food by frightening or intimidating other creatures. Intimidators have Persuade.

**Killer (shark):** Carnivores that possess a raw killing instinct, attacking in a frenzied manner. Killers have Melee.

**Intermittent (elephant):** Herbivores that do not devote their entire time to searching for food.

**Pouncer (cat):** Pouncers kill by stalking and ambushing their prey. Pouncers have Stealth, Recon and Athletics (dexterity or strength).

## Fight or Flight

Animal Type	Flee	Attack
<b>Herbivore</b>		
Filter	5-	10+ if possible
Intermittent	4-	10+
Grazer	6-	8+
<b>Omnivore</b>		
Gatherer	7-	9+
Hunter	5-	If the animal is of greater Size, attacks on 6+. Otherwise, attacks on 10+
Eater	4-	5+
<b>Carnivore</b>		
Pouncer	If surprised, flees	If animal has surprise, attacks
Chaser	5-	If animals outnumber prey, attack
Trapper	5-	If animal has surprise, attacks
Siren	4-	If animal has surprise, attacks
Killer	3-	6+
<b>Scavenger</b>		
Hijacker	6-	7+
Intimidator	7-	8+
Carrion-eater	7-	11+
Reducer	7-	10+



**Reducer (vermin):** Reducers are scavengers that act constantly on all available food, devouring even the remains left by other scavengers.

**Siren (Venus fly-trap):** Sirens create a lure to attract prey. Usually, this lure will be specific to the species the siren preys on, but some rare lures are universal. Sirens have Deception.

**Trapper (spider):** An animal which allows its prey to enter a trap. Generally, any creature surprised by a trapper is caught in its trap.

## ANIMAL REACTIONS

Non-domesticated animals usually react to threats or provocation by either fighting or fleeing. When Travellers disturb an animal or otherwise draw attention to themselves while within its territory, roll 2D and consult the Fight or Flight table. If the result is high enough to indicate hostility, the creature attacks. If the result is low enough to indicate flight, it flees, although may return later. If the result on the table is neither attack nor flee, then the animal continues its natural behaviour until provoked, in which case roll again.

## OTHER CHARACTERS

During the course of the Travellers' adventures, the referee will play a huge variety of non-player characters – starport staff and guards, traders, Imperial bureaucrats and nobles, dangerous criminals, archaeologists and scientists, naval officers, alien diplomats, untrustworthy brokers, primitive tribesmen, deranged artificial intelligences, alien hive-minds and whoever else the Travellers encounter. Most of these non-player characters will appear only for a single scene, so there is no need to lavish detail on a trader or guard. Just come up with a personality trait or two and a name and jot them down. If a non-player character is to appear multiple times in the campaign, then the referee should determine characteristics, skills and a fuller personality. While the focus of the game is always on the Travellers, important non-player characters do not exist solely to serve as allies or antagonists. Non-player characters have their own agendas and desires, and will pursue their own goals. Sometimes, their schemes might just enmesh the Travellers!

*For example, Erik has a Contact named Tarel Paragi, an Imperial diplomat. Erik can call on Paragi when dealing with imperial bureaucracies. What Erik does not know is that Tarel is secretly a Zhodani spy, and that every favour that Erik asks of his friend is putting him deeper in debt to a foreign power.*

## Generating Non-Player Characters

While non-player characters can be generated using the Traveller Creation chapter (*Book 1: Characters & Combat*), it is generally faster just to note down characteristics and a few appropriate skills. A skilled professional has two or three levels in skills related to his occupation, and zero or one levels in a half-dozen other skills.

There are five types of non-player character who are likely to show up throughout a typical campaign; Allies, Contacts, Rivals, Enemies, and Patrons.

**Allies:** These people are willing to go out of their way to help the Travellers. An Ally is willing to risk his reputation, status and even his life for his friends, but will expect equal consideration from the Travellers. Allies are actively looking to further the careers of the Travellers, passing on useful information and rumours. In general, Travellers can call on an Ally's aid once per year without penalty, but expecting more will stress the Ally's resources. The Ally will still give help if asked, but this may result in the Ally losing position or influence.

*Erik's Ally is his old Naval commander, Jan Halos, who mustered out of the Navy around the same time as Erik. Halos is now a wandering free trader with his own starship. In the past, Halos has flown in to rescue Erik's ship from attack and aided Erik in a dangerous smuggling mission. If Erik asked, Halos would risk anything for him.*

**Contacts:** These people are willing to help the Traveller when they can, but only in a limited fashion. An Ally would give the Travellers a weapon, but a Contact would only tell the Travellers where they could purchase it.

*Erik's Contact is Tarel Paragi, a diplomat. Tarel will pass on useful information to Erik, in exchange for other rumours and bits of data. Tarel will advise Erik when dealing with the Imperial bureaucracy, but will not endanger himself. There is an alliance of convenience as far as the diplomat is concerned.*

**Rivals and Enemies:** These are both adversaries of the Travellers – Enemies are just willing to go further. While adventures can revolve around the efforts of a Rival to discredit or kill the Travellers, the referee should also drop Rivals and Enemies into other plots. For example, if the Travellers are trying to find a starport willing to repair their damaged ship, a Rival might show up in the system and poach passengers.

Enemies and especially Rivals should be mobile. If the Travellers are going to spend their time jumping from system to system, then their Rivals should have starships of their own so the Travellers encounter them



again and again. Enemies can be stationary, but should have a long enough reach to affect the Travellers. Totalitarian governments, evil conspiracies or interstellar corporations all make great Enemies.

*Erik's Rival is Manfred Greel, a notorious corsair and thief. Greel has a grudge against Erik, and takes great pleasure in tormenting or sabotaging anything Erik does. Greel has come to enjoy their little contests, though, and greatly prefers to humiliate and provoke Erik instead of trying to kill him.*

**Patrons:** These people supply the Travellers with work and adventure, and are covered in much greater detail later in this chapter.

### Quick Characters

If a referee needs to quickly create a Contact, Ally, Rival or Enemy, or if a Traveller needs inspiration to create one, roll on the Allies and Enemies table. If desired, also roll on the Character Quirks table opposite to give the character an added dimension.

### Experience Levels

In addition to rolling on the tables to create quick characters, the referee may also use experience levels to rapidly give a character suitable characteristics and skills.

Each character will have one skill from the list at the first level, and all other skills at the second level.

Green characters have completely average characteristics (a score of 7 for each one). More experienced characters have modified characteristics, adding +1 to a single characteristic if they are Average, and another +1 to any two characteristics if they are Experienced, and so on, as shown on the Experience table. The characteristics increased in this way should relate to the occupation of the character (so, a scientist would likely have increased INT and EDU, while a mercenary would likely have increased DEX and END).

*Additional skills can be added to further specialise a character. A scientist, for example, will likely have Electronics (computers) and Science, while a Navy fighter pilot will have Pilot (small craft). The referee can add skills and equipment as he feels appropriate to the character's role in the adventure.*

## PATRONS AND MISSIONS

Patrons are non-player characters in positions of power, authority, influence or dire need who employ the Travellers and give them missions. Sometimes, the reward from a

mission will be purely financial – the Travellers might be hired as bodyguards, mercenaries, couriers, thieves or scouts for a few hundred credits. Other missions will have less tangible rewards, such as being owed a favour by the patron, acquisition of status or influence, or just the knowledge of having done the right thing.

While the referee should normally design missions in detail, tailoring events to the skills and personalities of the Travellers, random missions can be generated in a hurry by using the following tables.

## RANDOM ENCOUNTERS

These random encounter tables for settled planets cover a wide cross-section of society, and can be used by referees in emergencies or when the Travellers do something unexpected. Encounters should be adjusted based on the culture and technology of the planet. The referee should roll for a new encounter every six hours on average (more often if the Travellers are moving great distances or attracting attention).

### Allies and Enemies

D66	Character	D66	Character
11	Naval Officer	41	Bored Noble
12	Imperial Diplomat	42	Planetary Governor
13	Crooked Trader	43	Inveterate Gambler
14	Medical Doctor	44	Crusading Journalist
15	Eccentric Scientist	45	Doomsday Cultist
16	Mercenary	46	Corporate Agent
21	Famous Performer	51	Criminal Syndicate
22	Alien Thief	52	Military Governor
23	Free Trader	53	Army Quartermaster
24	Explorer	54	Private Investigator
25	Marine Captain	55	Starport Administrator
26	Corporate Executive	56	Retired Admiral
31	Researcher	61	Alien Ambassador
32	Cultural Attaché	62	Smuggler
33	Religious Leader	63	Weapons Inspector
34	Conspirator	64	Elder Statesman
35	Rich Noble	65	Planetary Warlord
36	Artificial Intelligence	66	Imperial Agent



## Experience

Experience Level	Skills	Average Skill Level	Characteristics
Green Non-combatant	Drive/Flyer	0	+0
Green Combatant	Drive/Flyer, Gun Combat, Melee	0	+0
Average Non-combatant	Drive/Flyer, Profession	1	+1
Average Combatant	Drive/Flyer, Gun Combat, Melee, Recon	1	+1
Experienced Non-combatant	Admin, Drive/Flyer, Profession	2	+1, +2
Experienced Combatant	Drive/Flyer, Gun Combat, Heavy Weapons, Melee, Recon	2	+1, +2
Elite Non-combatant	Admin, Drive/Flyer, Investigate, Profession	3	+1, +2, +3
Elite Combatant	Drive/Flyer, Gun Combat, Heavy Weapons, Melee, Recon, Tactics	3	+1, +2, +3

## Character Quirks

D66	Quirk	D66	Quirk
11	Loyal	41	Rumour-monger
12	Distracted by other worries	42	Unusually provincial
13	In debt to criminals	43	Drunkard or drug addict
14	Makes very bad jokes	44	Government informant
15	Will betray characters	45	Mistakes a Traveller for someone else
16	Aggressive	46	Possesses unusually advanced technology
21	Has secret allies	51	Unusually handsome or beautiful
22	Secret anagathic user	52	Spying on the Travellers
23	Looking for something	53	Possesses TAS membership
24	Helpful	54	Is secretly hostile towards the Travellers
25	Forgetful	55	Wants to borrow money
26	Wants to hire the Travellers	56	Is convinced the Travellers are dangerous
31	Has useful contacts	61	Involved in political intrigue
32	Artistic	62	Has a dangerous secret
33	Easily confused	63	Wants to get off planet as soon as possible
34	Unusually ugly	64	Attracted to a Traveller
35	Worried about current situation	65	From offworld
36	Shows pictures of his children	66	Possesses telepathy or other unusual quality

## Random Opposition

D66	Opposition	D66	Opposition
11	Animals	41	Target is in deep space
12	Large animal	42	Target is in orbit
13	Bandits & thieves	43	Hostile weather conditions
14	Fearful peasants	44	Dangerous organisms or radiation
15	Local authorities	45	Target is in a dangerous region
16	Local lord	46	Target is in a restricted area
21	Criminals – thugs or corsairs	51	Target is under electronic observation
22	Criminals – thieves or saboteurs	52	Hostile guard robots or ships
23	Police – ordinary security forces	53	Biometric identification required
24	Police – inspectors & detectives	54	Mechanical failure or computer hacking
25	Corporate - agents	55	Travellers are under surveillance
26	Corporate – legal	56	Out of fuel or ammunition
31	Starport security	61	Police investigation
32	Imperial marines	62	Legal barriers
33	Interstellar corporation	63	Nobility
34	Alien – private citizen or corporation	64	Government officials
35	Alien – government	65	Target is protected by a third party
36	Space travellers or rival ship	66	Hostages



## Random Patrons

D66	Patron	D66	Patron
11	Assassin	41	Merchant
12	Smuggler	42	Free Trader
13	Terrorist	43	Broker
14	Embezzler	44	Corporate Executive
15	Thief	45	Corporate Agent
16	Revolutionary	46	Financier
21	Clerk	51	Belter
22	Administrator	52	Researcher
23	Mayor	53	Naval Officer
24	Minor Noble	54	Pilot
25	Physician	55	Starport Administrator
26	Tribal Leader	56	Scout
31	Diplomat	61	Alien
32	Courier	62	Playboy
33	Spy	63	Stowaway
34	Ambassador	64	Family Relative
35	Noble	65	Agent of a Foreign Power
36	Police Officer	66	Imperial Agent

## Random Mission

D66	Mission	D66	Mission
11	Assassinate a target	41	Investigate a crime
12	Frame a target	42	Investigate a theft
13	Destroy a target	43	Investigate a murder
14	Steal from a target	44	Investigate a mystery
15	Aid in a burglary	45	Investigate a target
16	Stop a burglary	46	Investigate an event
21	Retrieve data or an object from a secure facility	51	Join an expedition
22	Discredit a target	52	Survey a planet
23	Find a lost cargo	53	Explore a new system
24	Find a lost person	54	Explore a ruin
25	Deceive a target	55	Salvage a ship
26	Sabotage a target	56	Capture a creature
31	Transport goods	61	Hijack a ship
32	Transport a person	62	Entertain a noble
33	Transport data	63	Protect a target
34	Transport goods secretly	64	Save a target
35	Transport goods quickly	65	Aid a target
36	Transport dangerous goods	66	It is a trap – the Patron intends to betray the Traveller

## Random Targets

D66	Target	D66	Target
11	Common Trade Goods	41	Roll on the Random Patron table
12	Common Trade Goods	42	Roll on the Random Patron table
13	Random Trade Goods	43	Roll on the Random Patron table
14	Random Trade Goods	44	Roll on the Allies and Enemies table
15	Illegal Trade Goods	45	Roll on the Allies and Enemies table
16	Illegal Trade Goods	46	Roll on the Allies and Enemies table
21	Computer Data	51	Local Government
22	Alien Artefact	52	Planetary Government
23	Personal Effects	53	Corporation
24	Work of Art	54	Imperial Intelligence
25	Historical Artefact	55	Criminal Syndicate
26	Weapon	56	Criminal Gang
31	Starport	61	Free Trader
32	Asteroid Base	62	Yacht
33	City	63	Cargo Hauler
34	Research station	64	Police Cutter
35	Bar or Nightclub	65	Space Station
36	Medical Facility	66	Warship

## Payment for Missions

The scale of payment for missions varies depending on how difficult the mission is, but also on the Travellers' circumstances. A band of penniless Travellers who make their way from star system to system in low berths might be happy to be paid Cr5000 each for two weeks' work but the crew of a free trader can make hundreds of thousands of credits by spending that time shipping cargo. In fact, Travellers with huge ship mortgages to maintain may have to turn down unprofitable missions.

A wise patron, therefore, should always offer the Travellers more than they can get by trading.



## Starport Encounters

D66	Encounter	D66	Encounter
11	Maintenance robot at work	41	Traders offer spare parts and supplies at cut-price rates
12	Trade ship arrives or departs	42	Repair yard catches fire
13	Captain argues about fuel prices	43	Passenger liner arrives or departs
14	News report about pirate activity on a starport screen draws a crowd	44	Servant robot offers to guide Travellers around the spaceport
15	Bored clerk makes life difficult for the Travellers	45	Trader from a distant system selling strange curios
16	Local merchant with cargo to transport seeks a ship	46	Old crippled belter asks for spare change and complains about drones taking his job
21	Dissident tries to claim sanctuary from planetary authorities	51	Patron offers the Travellers a job
22	Traders from offworld argue with local brokers	52	Passenger looking for a ship
23	Technician repairing starport computer system	53	Religious pilgrims try to convert the Travellers
24	Reporter asks for news from offworld	54	Cargo hauler arrives or departs
25	Bizarre cultural performance	55	Scout ship arrives or departs
26	Patron argues with another group of Travellers	56	Illegal or dangerous goods are impounded
31	Military vessel arrives or departs	61	Pickpocket tries to steal from the Travellers
32	Demonstration outside starport	62	Drunken crew pick a fight
33	Escaped prisoners begs for passage offworld	63	Government officials investigate the characters
34	Impromptu bazaar of bizarre items	64	Random security sweep scans Travellers and their baggage
35	Security patrol	65	Starport is temporarily shut down for security reasons
36	Unusual alien	66	Damaged ship makes emergency docking

## Rural Encounters

D66	Encounter	D66	Encounter
11	Wild Animal	41	Wild Animal
12	Agricultural robots	42	Small community – quiet place to live
13	Crop sprayer drone flies overhead	43	Small community – on a trade route
14	Damaged agricultural robot being repaired	44	Small community – festival in progress
15	Small, isolationist community	45	Small community – in danger
16	Noble hunting party	46	Small community – not what it seems
21	Wild Animal	51	Wild Animal
22	Local landing field	52	Unusual weather
23	Lost child	53	Difficult terrain
24	Travelling merchant caravan	54	Unusual creature
25	Cargo convoy	55	Isolated homestead - welcoming
26	Police chase	56	Isolated homestead - unfriendly
31	Wild Animal	61	Wild Animal
32	Telecommunications black spot	62	Private villa
33	Security patrol	63	Monastery or retreat
34	Military facility	64	Experimental farm
35	Bar or waystation	65	Ruined structure
36	Grounded spacecraft	66	Research facility



## Urban Encounters

D66	Encounter	D66	Encounter
11	Street riot in progress	41	Security Patrol
12	Travellers pass a charming restaurant	42	Ancient building or archive
13	Trader in illegal goods	43	Festival
14	Public argument	44	Someone is following the characters
15	Sudden change of weather	45	Unusual cultural group or event
16	Travellers are asked for help	46	Planetary official
21	Travellers pass a bar or pub	51	Travellers spot someone they recognise
22	Travellers pass a theatre or other entertainment venue	52	Public demonstration
23	Curiosity Shop	53	Robot or other servant passes Travellers
24	Street market stall tries to sell the Travellers something	54	Prospective patron
25	Fire, dome breach or other emergency in progress	55	Crime such as robbery or attack in progress
26	Attempted robbery of Travellers	56	Street preacher rants at the Travellers
31	Vehicle accident involving the Travellers	61	News broadcast on public screens
32	Low-flying spacecraft flies overhead	62	Sudden curfew or other restriction on movement
33	Alien or other offworlder	63	Unusually empty or quiet street
34	Random character bumps into a Traveller	64	Public announcement
35	Pickpocket	65	Sports event
36	Media team or journalist	66	Imperial Dignitary



Remember, there is no faster-than-light communication in the Third Imperium. Allies and Contacts can only be contacted when the Travellers are in the same system, and there will be a delay in communications traffic of several seconds or even minutes if the Travellers are on different planets within that system.





# SPACECRAFT OPERATIONS

This chapter covers operations and encounters in space, other than combat between spacecraft (for which refer to the Space Combat chapter). Ship captains are advised to read this chapter carefully as it contains everything needed to operate and maintain a spacecraft during day-to-day activities.

## SPACECRAFT

The term spacecraft covers any interplanetary or interstellar vehicle – anything that can travel through space under its own power. There are subdivisions of spacecraft that further define these vessels.

**Ship:** A spacecraft of 100 tons or more.

**Small Craft:** A spacecraft of less than 100 tons. Small craft are incapable of jumping to other star systems.

**Capital Ship:** A ship of more than 5,000 tons.

**System Ship:** A ship without jump drives

**Streamlined Hull:** A ship designed to fly through atmosphere – will feature a wing or lifting body.

**Partially Streamlined Hull:** These ships may enter atmospheres but are not specifically designed to do so and are extremely ungainly.

**Unstreamlined Hull:** These ships are completely non-aerodynamic. While they can potentially enter atmospheres, this tends to be very dangerous.

The size of a ship, its components and cargo is measured in displacement tons, or simply tons. A displacement ton displaces a volume equal to one ton of liquid hydrogen. One displacement ton is roughly equal to 14 cubic metres.

## BUYING A SHIP

Spacecraft are eye-wateringly expensive, to the extent that, ordinarily, only the very rich, governments or large corporations can afford them. However, an industry of ship mortgages has sprung up that allows individual Travellers at least the dream of owning their own ship, though the repayments can be suitably astronomical and may force them to make less than noble decisions

in order to meet the monthly bills (this is the basis and driving force of many *Traveller* campaigns).

The monthly repayments on a ship mortgage are easy to calculate. Start with the total purchase price of the ship being bought, then divide this amount by 240.

This is the amount that must be repaid every month for the next 40 years.

## Career Benefits

It is possible for some Travellers to receive a ship as a benefit when leaving a career, such as a merchant receiving a free trader or a scholar receiving a laboratory ship. This represents them buying a ship earlier in life and a proportion of the mortgage will have already been paid off.

Every time a ship is rolled as a benefit, 25% of the original mortgage has been paid off. In practice, the Traveller may choose to continue to pay the calculated mortgage for ten years less every time the benefit is rolled (continuing the mortgage) and pay his ship off faster, or deduct 25% from the purchase price of the ship before calculating the mortgage cost (effectively re-mortgaging) to be paying less per month.



## Space and Time

The following units of measurement are used to describe astronomical distances.

**Astronomic Unit:** The distance between the Earth and the Sun – 149,597,870 kilometres

**Light Second:** The distance light travels in one second – 299,792 kilometres

**Light Minute:** 17,987,547 kilometres

**Light Year:** 9,460,730,472,580.8 kilometres

**Parsec:** Parallax of one second of arc –  $30.857 \times 10^{12}$  km, or 3.262 light years.





## Ship Shares

Individual ship shares may also be earned during careers, each worth MCr1. If they are put towards the purchase of a ship, deduct MCr1 from the purchase cost of the ship for every share, then calculate the mortgage.

## AIRLOCKS

A ship has at least one airlock per 500 tons. The average airlock is large enough for three people in vacc suits to pass through. An airlock takes ten seconds to cycle. Under normal circumstances, airlocks are locked down from the bridge and require a Very Difficult (12+) Electronics (computers) check to override. An unlocked airlock can be triggered from outside. Airlocks generally have vacc suits (see page 83 of *Book 1: Characters & Combat*), rescue bubbles (see page 99 of *Book 1: Characters & Combat*) and cutlasses (see page 102 of *Book 1: Characters & Combat*) in lockers nearby.

Ships with cargo space have cargo hatches, allowing up to 10% of their cargo to be transferred at any one time.

## ATMOSPHERIC OPERATIONS

A streamlined ship is designed to enter a planetary atmosphere, and can function like a conventional aircraft. Pilot checks are required in high winds and other extreme weather.

Partial streamlining allows a ship to skim gas giants and enter Atmosphere codes of 3 or less, acting in the same way as streamlined ships. In other atmospheres, the ship will be ponderous and unresponsive, reliant on its thrusters to keep it aloft. All Pilot checks will be made with DM-2.

An unstreamlined ship is completely non-aerodynamic and if it enters an atmosphere it runs the risk of sustaining serious damage. Such a ship must make a Pilot check at DM-4 when it enters an atmosphere and for every minute of flight. Each failed check inflicts 1D damage to the ship, ignoring any Armour.

## DOCKING AND LANDING

These two procedures are routine and performed whenever a ship travels between systems, so ship captains should be very familiar with their operation. Note the rules for atmospheric operation will apply whenever a ship lands on a planet with an atmosphere.

## Landing

Landing at a starport requires a Routine (6+) Pilot check (1D x 10 seconds), but most pilots will take 1D minutes to perform a landing, and gain DM+2 on the task.

Ships have landing gear, allowing them to touch down 'in the wild', which requires an Average (8+), Difficult (10+) or even Very Difficult (12+) Pilot check, depending on local terrain. They can also land on bodies of water. Failing a Pilot check while attempting a landing means the ship has landed improperly or even crashed.

## Docking

Two spacecraft may dock if they are close together and neither ship attempts to resist the docking manoeuvre. Many airlock designs across charted space are compatible; for incompatible airlocks, ships extend flexible plastic docking tubes that adapt to the target airlock. Docking with another vessel requires a Routine (6+) Pilot check (1D minutes).

## Boarding

Hostile ships may be docked with and boarded, though this is a very dangerous operation at all stages. Boarding attempts are detailed on page 39.

## POWER

Every spacecraft has a power plant which produces a number of Power points, as listed in its description in the Common Spacecraft chapter. Under normal circumstances, most ships will produce enough power to run all systems and weapons without any attention needed from the crew. However, some very unusual ships (see *High Guard* for some examples) may be built underpowered, usually to fulfil specific budgetary or design criteria. Other ships may run into power problems if they receive damage to their power plant (see critical hits on page 34).

A ship needs the following Power points available for each of these listed systems. The spacecraft in the Common Spacecraft chapter have a summary of these systems which will greatly speed play if power starts getting low.

**Basic Ship Systems:** This includes everything a ship needs for day-to-day operations, including artificial gravity, heating, lighting and life support. The number of Power points needed for basic ship systems is equal to 20% of the total tonnage of the hull.



**Manoeuvre Drive:** In order to use the manoeuvre drive, the ship requires a number of Power points equal to 10% of the hull's total tonnage multiplied by the maximum Thrust the drive is capable of.

**Jump Drive:** In order to use the jump drive, the ship requires a number of Power points equal to 10% of the hull's total tonnage multiplied by the maximum jump number the drive is capable of. Note that this power requirement is only needed when the ship actually initiates a jump – at all other times, the jump drive remains inert.

**Weapons and Systems:** The Weapons and Systems table summarises the Power point requirements for various internal components of a spacecraft that are included in this book.

## Weapons and Systems

System	Power Required
Beam Laser	4
Missile Rack	0
Particle Beam	8
Pulse Laser	4
Sandcaster	0
Turret	1

## Running Out of Power

So long as a ship's power plant is producing enough Power points to run all systems, the spacecraft can operate normally. If, for any reason, the amount of Power points required drops below this, the crew need to make some tough decisions, shutting down various systems so they are no longer a drain on the power plant.

The consequences of shutting down various systems are detailed here. See the Space Combat chapter for ways a crew can shut down systems in battle and, potentially, increase the output of the power plant.

**Basic Ship Systems:** Basic ship systems cover essentials such as life support, the ship's computer and the gravitic systems providing artificial gravity, which are absolutely vital to the continued running of a ship. However, there are many non-essential systems that can be shut down on a temporary basis (the chicken soup dispenser on deck C is unlikely to be needed in battle, for example), which will halve the number of Power points needed for basic ship systems.

**Manoeuvre Drive:** The manoeuvre drive can be throttled back or shut off altogether. This will save a number of Power points equal to 10% of the ship's total tonnage multiplied by the Thrust being deducted.



## Skipping on Debts

Ship captains hoping to avoid crippling repayments on multi-million credit loans may be tempted to skip out on repayments, jumping to distant systems to make a new life for themselves. If the Travellers do so, they may be chased by ship tracers (bounty hunters) employed by the bank, or logged as criminals in the Imperial database and hunted down by naval vessels. For each new system, roll 2D and apply the modifiers below. If the result is an 8+, the Travellers will be hunted for their crimes.

**Per parsec distant:** -1, reset every time the Travellers are discovered

**Changes to the ship (repainting, altering transponders, refits etc):** -1 to -6

**Per MCr10 of value of ship stolen:** +1

**If the Travellers have visited this system more than once in the past three months:** +2

**Payment is less than one month overdue:** -4

**Payment is one to six months overdue:** +4

**Payment is seven to twelve months overdue:** +2

**Payment is one year or more overdue:** +0

**Add the local Law Level -5**



**Jump Drive:** The jump drive does not ordinarily drain any power until it is used – however, it is when a crisis has developed that has reduced a ship's power that the crew usually want to jump, so it will be more common for other systems to be shut down in order to allow the jump drive to function!

**Weapons and Systems:** Individual weapons and systems can be switched off on a temporary basis, regaining the number of Power points listed on the Weapons and Systems table.

## High Guard

The *High Guard* book contains a complete spacecraft design system, along with full details on how power plants generate Power points and how much is needed to engage the operation of all components.

## RUNNING COSTS AND MAINTENANCE

A starship operator faces many costs each month, which must be paid in order to carry on flying.



## Poor Maintenance

2D	Critical Hit	Effect
2-4	Fuel Leak	The spacecraft loses 1D x 10% of its fuel capacity.
5-7	Drive Damaged	Roll 1D. On 1-3, the manoeuvre drive is hit; reduce Thrust by -1 and all Pilot checks suffer a Bane. On 4-6, the jump drive is hit and disabled – it may not be used until repaired.
8-9	Weapon Faulty	One random turret (or weapon, if no turrets are present) is damaged causing a Bane on all attack rolls made with it.
10-12	Power Plant	The spacecraft's Power Points are reduced by 25% and it takes 1D extra damage, ignoring armour. All crew suffer 2D x 10 rads per week.

## Running Cost Summary

Item	Monthly Cost
Mortgage	Varies on ship
Life Support	Cr1000 per stateroom, Cr3000 for double occupancy, Cr100 per low berth, Cr1000 per person
Fuel	Cr500 per refined ton, Cr100 per unrefined ton
Repairs and Maintenance	0.1% of purchase price, divided by 12
Salary: Pilot	Cr6000
Salary: Astrogator	Cr5000
Salary: Engineer	Cr4000
Salary: Steward	Cr2000
Salary: Medic	Cr3000
Salary: Gunner	Cr1000
Salary: Marine	Cr1000

**Mortgage or Debts:** If the crew are paying off debts on their spacecraft, then these must be paid each month.

**Life Support and Supplies:** Each stateroom on a ship costs Cr1000 per month. This cost covers supplies for the life support system as well as food and water, although meals at this level will be rather Spartan.

Each person on board a ship who is not in a low berth will cost an additional Cr1000 in life support costs.

Each occupied low berth costs Cr100 per month.

**Fuel:** Fuel costs Cr500 per ton for refined fuel, or Cr100 per ton for unrefined fuel. Fuel is required for both the jump drive and power plant.

**Repairs and Maintenance:** A ship needs maintenance, which costs 0.1% of the total purchase price of the ship per year. Maintenance should be carried out each month (divide the year's maintenance cost by 12 to find the monthly cost. Once per year this should be performed at a shipyard.

If maintenance is skipped or skimped on, roll 2D each subsequent month, with a DM equal to the number of months skipped. On 8+, the ship suffers a critical hit. Roll 2D on the Poor Maintenance table and apply the effects.

To repair this damage, see page 37.

**Crew Salaries:** Salaries for hired crew members must be paid each month.

**Berthing Costs:** Landing at a starport incurs a cost, which varies wildly from world to world. See Starports, page 101.

## ENCOUNTERS

Space is unimaginably vast – on a galactic scale, stars are little wisps of hydrogen and gas giants are just specks of matter. If ships travelled through the whole of the space in a system, they would never encounter each other. However, spacecraft tend to crowd to just a few places in any given system, such as the hundred-diameter jump limit of colonised worlds, industrial belts in orbit, and gas giants and settled moons. Outside of these regions, the chance of an encounter is negligible.

To generate a random encounter, roll 1D every day. On a 6, the ship has encountered something - roll D66 twice on the Space Encounters table, applying the following DMs to the first dice rolled on the D66 only (thus, Settled Space has a range of 21-76, and Wild Space has a range of 01-56).

**Highport (DM+3):** The space near an orbital starport

**High-Traffic Space (DM+2):** The space near an industrial world with a high-class starport.

**Settled Space (DM+1):** Most core worlds in settled or colonised space.

**Border Systems (DM+0):** Outlying worlds near the border, such as the Spinward Marches.

**Wild Space (DM-1):** Amber or Red worlds.

**Empty Space (DM-4):** Untravelled space or unexplored systems.

Encounters in **bold** cannot be ignored – they are potentially hostile ships or encounters that will force the Travellers to respond.



## Space Encounters

D66	Encounter	D66	Encounter
01	Alien derelict (possible salvage)	51	Hostile vessel (roll again for type)
02	Solar flare (1D x 100 rads)	52	Garbage ejected from a ship
03	Asteroid (empty rock)	53	Medical ship or hospital
04	Ore-bearing asteroid (possible mining)	54	Lab ship or scout
05	Alien vessel (on a mission)	55	Patron
06	Rock hermit (inhabited rock)	56	Police ship
11	Pirate	61	Unusually daring pirate
12	Derelict vessel (possible salvage)	62	Noble yacht
13	Space station (1-4: derelict)	63	Warship
14	Comet (may be ancient derelict at its core)	64	Cargo vessel
15	Ore-bearing asteroid (possible mining)	65	Navigational Buoy or Beacon
16	Ship in distress (roll again for type)	66	Unusual ship
21	Pirate	71	Collision with space junk (collision!)
22	Free trader	72	Automated vessel
23	Micrometeorite Storm (collision!)	73	Free Trader
24	Hostile vessel (roll again for type)	74	Dumped cargo pod (roll on random trade goods)
25	Mining ship	75	Police vessel
26	Scout Ship	76	Cargo hauler
31	Alien vessel (1-3: trader, 4-6: explorer, 6: spy)	81	Passenger liner
32	Space junk (possible salvage)	82	Orbital factory (roll on random trade goods)
33	Far Trader	83	Orbital habitat
34	Derelict (possible salvage)	84	Orbital habitat
35	Safari or science vessel	85	Communications Satellite
36	Escape pod	86	Defence Satellite
41	Passenger liner	91	Pleasure craft
42	Ship in distress (roll again for type)	92	Space station
43	Colony ship or passenger liner	93	Police vessel
44	Scout ship	94	Cargo hauler
45	Space station	95	System Defence Boat
46	X-Boat Courier	96	Grand Fleet warship

The encounter distance depends on the results of an Electronics (sensors) check. Civilian vessels and military craft not on manoeuvres broadcast a continuous IFF beacon, which gives DM+4 to detection attempts. See Sensors on page 26.

Collisions, signals and solar flares are obviously exempt from encounter distance rules.

**Collision!:** Almost any collision at high speed is lethal even for the most powerful spacecraft. In this case, the ship has collided with a tiny object that has nevertheless smashed into the hull. The ship suffers 1D damage.

**Distress Signals:** Ships transmit the standard time-stamped SOS message (also known as Mayday in Solomani or Signal GK in Vilani within the Third

Imperium setting) when in distress. Any vessel who detects an SOS is legally required to respond and offer assistance or contact the authorities. Failure to render assistance is a criminal offence, but the harsh requirements of life support and orbital mechanics mean that many deaths in space are slow ones, where a crew know they are doomed but have days or weeks in which to contemplate it. Most ships carry emergency low berths where the crew can freeze themselves and wait for rescue.

Some distress calls are fakes, intended to draw ships in so they can be attacked.

**Mining:** A ship carrying mining drones can mine an asteroid for useful ores. Roll 2D on the Asteroid Mining table to determine how many tons of ore are available. These can then be sold using the rules found in the Trade chapter.



## Salvage

2D	Salvage	2D	Salvage
3 or less	Hazard! The ship's reactor is damaged, the ship is about to break up, there is a virus loose aboard ship, an alien monster killed the crew...	8	Cargo: 2D tons of the derelict's cargo. Roll D66 on the Trade Goods table (page 88) to determine the type.
4	No Salvage: Nothing useful can be recovered.	9	Considerable Cargo: 2D x 10 tons of cargo (up to the derelict's maximum cargo).
5	Junk: Minor personal effects, spare parts, trophies and other junk.	10	Interesting Artefact: An alien relic, useful personal data, mail cannister or other adventure hook – or maybe a survivor in a low berth.
6	Fuel: 2D x 10 tons of fuel can be extracted from the salvage (not exceeding the derelict's maximum capacity)	11	Fittings: Weapons turrets, ship's computers or air/raft, with a total value of 2D x Cr250000
7	Equipment: Items such as vacc suits, medical supplies, weapons, with a total value of 2D x Cr2000.	12	Ship: The ship is potentially repairable.

## Asteroid Mining

2D	Ore Available
2	2D tons of Precious Metals
3-4	2D x 20 tons of Common Ore
5-6	2D x 50 tons of Common Ore
7-8	2D x 10 tons of Uncommon Ore
9-11	2D x 20 tons of Uncommon Ore
12	1D tons of Radioactives

More detailed rules for asteroid mining can be found in High Guard.

**Police Vessel:** This result may also indicate a military vessel or government ship. A police vessel will aid the Travellers if they are attacked, but will also challenge them to identify themselves and scan for contraband cargo.

**Pirate:** Pirates operate in three ways, all aimed at avoiding contact with the authorities at a spaceport (except in lawless systems where pirates operate with impunity). Some ambush ships travelling through normal space to outlying moons and colony worlds. Others lurk around the hundred-diameter mark, hoping to surprise a ship as it prepares to jump. The pirates then quickly loot the most valuable cargo and supplies, and jump themselves before the authorities arrive. The third category of pirates have agents and spies in the starport, and know exactly which ships are suitable targets.

Pirates often use armed free traders or even scout/couriers.

**Salvage:** A derelict vessel or jettisoned cargo can be salvaged. Universal law in space permits salvage, but the discovery must be registered first with the system starport, if any. Roll 2D on the salvage table, applying

DM-0 to -6 depending on how damaged the derelict is. If the result is an 8+, then it includes all the potential salvage found on the Salvage table.

Note that pirates have been known to use derelicts as bait...

More detailed rules for salvaging derelict ships can be found in High Guard.

## FUEL

Most ships use refined hydrogen as fuel for their fusion power plants engines and jump drives. Starports (see page 101) and virtually any other facility that regularly hosts spacecraft will offer refuelling facilities. Hydrogen is obtained from water or from the atmospheres of gas giants, and costs Cr500 per ton for refined fuel.

Some out-of-the-way places only offer unrefined fuel, at the bargain price of just Cr100 per ton. Using unrefined fuel is dangerous when jumping (see Jump Travel).

Either way, it typically takes 1D hours to refuel a typical ship.

A ship with fuel scoops may gather fuel from bodies of water using hoses. It may also scoop hydrogen from a gas giant, requiring a Difficult (10+) Pilot check (1D hours). Fuel gathered in the wild is unrefined, but a ship with fuel refiners may refine it.

## JUMP TRAVEL

Jump travel here covers the method by which ships can travel the enormous distances needed to journey to other star systems with relative speed. Other methods of star travel are covered in the *Traveller Companion*.



Jump travel is the only known means by which a vessel may travel faster than light. To jump, a ship creates a bubble of hyperspace by means of injecting high-energy exotic particles into an artificial singularity. The singularity is driven out of our universe, creating a tiny parallel universe which is then blown up like a balloon by injecting hydrogen into it. The jump bubble is folded around the ship, carrying it into the little pocket universe.

This new universe is short-lived, and will eventually collapse, precipitating the ship back into normal space several light-years from its original position.

A ship can only safely jump when it is more than one hundred diameters distant from any object larger than the ship. A vessel could only jump away from Earth, for example, when it is more than 1.27 million kilometres distant (as well as 140 million kilometres away from Sol and 300,000 kilometres away from the Moon). Gravity can cause a jump bubble to collapse prematurely, bringing a ship back into normal space early – so, if a ship tried to jump from Earth to Mars when the Sun was between the two, the vessel would fall out of jump space as soon as it came within one hundred diameters of the Sun.

## Preparing for Jump

To jump, the following procedures must be performed as a task chain.

**Astrogation:** The jump needs to be plotted. This is an Easy (4+) Astrogation check (1D x 10 minutes, EDU), modified by the jump distance (thus, a jump covering 4 parsecs gives DM-4 to the check). If the check is failed, then the astrogator must plot the jump again. Astrogation can be done in advance (a jump is normally plotted while the ship is travelling out to the hundred-diameter distance).

**Divert Power:** A jump drive requires a tremendous amount of power to function which must be supplied by the ship's power plant. On many vessels, especially older ships, the power plant strains to provide this much, leading to the tradition of 'jump dimming' where non-essential systems including lighting is shut down to allow for jump. If insufficient power is available, the jump drive cannot be activated.

**Jump!:** Firing the jump drive requires an Easy (4+) Engineer (J-drive) check (1D x 10 minutes, EDU), modified by the Effect of the original Astrogation check and the following modifiers.

Jump drive not maintained: DM-1 per month behind maintenance

Using unrefined fuel: DM-2

Still within the hundred-diameter limit: DM-4

If this check is failed, then the ship misjumps.

## Jump Travel

A jump carries the vessel a number of parsecs equal to the jump number. Jumps of less than one parsec (less than three light years, or one hex) are possible, and count as jump-1 for the purposes of Astrogation checks and fuel expenditure. Regardless of how far the ship jumps, it always stays in jump space for roughly one week (148 + 6D hours).

While in jump space, the ship is completely and utterly cut off from the universe. It hangs in a shimmering bubble of boiling hydrogen, a pocket dimension from which nothing can escape. It cannot communicate with the normal universe, not even by psionic means. It is utterly alone.

When the ship exits jump space after an accurate jump, it tends to arrive close to the target world, but outside or on the verge of the hundred-diameter limit. Inaccurate jumps dump the ship somewhere in the inner system, requiring a long space flight.

## Misjumps

On rare occasions, normally because of a lack of maintenance or using unrefined fuel, a ship can misjump. Many misjumps are lethal, causing the jump bubble to collapse early or for time in the bubble to flow differently, so that trillions of subjective years pass inside the bubble and all that comes out the other end is hard radiation caused by protons exceeding their half-life.

If the Engineer (jump drive) check made to initiate a jump is failed by an Effect of -1, the ship will arrive in the target system but will appear 1D days later than normal. At the referee's option, roll an additional 1D – this is the number of extra days the ship spends in jump space from the point of view of the crew (the relativity error generated by this misjump causes a difference in perceived time aboard the ship and the rest of the universe).

If the Engineer (jump drive) check made to initiate a jump is failed by an Effect of -2, the ship will arrive in the target system but find itself a number of hundred-diameters away from the intended world multiplied by 1D



If a worse Effect is rolled, a merciful referee may wish to subject the Travellers to the most survivable form of misjump, where the ship ends up 1D x 1D parsecs in a random direction, potentially in deep (and empty) space.

## PASSENGERS

Passenger travel within the Imperium has been standardised into five overarching categories; High, Middle, Basic, Working and Low. It is assumed that the ship will take between one and three weeks to deliver the passenger to its destination (allowing enough time to fly out, jump for a week, then travel to the destination world).

The process of finding paying passengers is detailed in the Trade chapter. However, ship captains hoping to turn a profit when transporting passengers should be aware of the following.

**High Passage:** The passenger receives the best possible treatment. The passenger receives a stateroom and one ton of cargo space for baggage, and can expect high-quality entertainment. One level of the Steward skill is required for every ten high passengers.

**Middle Passage:** Middle passage is generally sold on a stand-by basis (so middle passengers can be 'bumped' by high passengers who arrive later – many ships will only take middle passengers if they cannot fill staterooms with high passage clients or lack enough stewards). One level of the Steward skill is required for every hundred middle passengers. A Traveller with Steward 0 can provide suitable services for ten middle passengers.

**Basic Passage:** Also called steerage, this is where a ship's captain tries to fill all available space with low-paying passengers. It is generally considered more trouble than it is worth, but there is nearly always someone desperate enough to use basic passage. Up to four basic passengers can be crammed into one stateroom and other areas of the ship can be kitted out with simple bunks to carry more – two tons of space is required for every basic passenger not in a stateroom.

**Working Passage:** This is identical to middle passage, but the passenger pays his way by serving on board ship in some capacity, usually fulfilling one of the crew positions.

**Low Passage:** A low passenger is frozen in a cryoberth, and counts as cargo. There is real danger to the passenger, as a Medic check is required upon opening the capsule, applying the passenger's END DM to the check.

A further DM+1 is applied if the ship is TL12 or higher, while non-humans suffer DM-2. An emergency low berth inflicts DM-1 on this check.

If the check failed, the passenger does not survive.

It is customary for the ship's captain to contribute Cr10 from every low passage towards a lottery in which each low passenger randomly guesses how many will survive the trip. If the winner is among the dead, the captain collects the prize. The lottery is administered by a ship's steward.

## REMOTE OPERATIONS

Some ships carry a variety of drones to enable their crew to perform tasks without leaving their ship or manoeuvring their vessel into hostile territory. Drones are piloted from their mother ship with the Electronics (remote ops) skill and can operate at up to Medium range.

Drones are typically man-sized and have gravitic drives that allow them to operate in both space and atmospheres. However, while they can land on a planet, they do not have the power to travel from the surface to orbit and must be recovered manually.

Some of the ships in the Common Spacecraft chapter carry the drones detailed here. *High Guard* contains more drones along with details on how they may be used with any ship.

### Mining Drones

Mining drones allow a ship to mine asteroids without manoeuvring perilously close to spinning hunks of rock. Each set of mining drones allows the ship to process 1D x 10 tons of asteroid per day (typically producing common ore). The presence of drones includes ore handling machinery, allowing the ship to take on ore and transfer it to the cargo bay.

### Probe Drones

Probe drones are for surveying planetary surfaces, and are commonly found on board scout ships. They can be dropped from orbit in disposable entry shells but must be recovered manually. Probe drones are also capable of surveying orbiting satellites, derelicts and other space debris, and can also be used as communications relays.

### Repair Drones

Carrying repair drones allows a ship to make repairs during combat, allowing access to exterior components without risking crew. They also have sufficient intelligence to allow repairs to be initiated by a drone controller rather than a dedicated engineer.



Repair drones allows a Traveller with the Electronics (remote ops) skill to use the Repair System action (see page 37). The repair drones are considered to have an Engineer skill level of 1 or the level the Traveller has in Electronics (remote ops), whichever is lower, in all specialities for the Repair System action alone.

## REPAIRS

Damage to a ship falls into two categories – critical hits and hull damage.

**Critical Hit:** A critical hit can be jury-rigged back to use (see page 36), but will stop functioning again after 1D hours. Properly repairing a critical hit requires not only an Engineer or Mechanic check (1D hours) but also spare parts. The Effect of the check determines how many spare parts are required, minus the Severity of the critical hit. Spare parts can be purchased at the cost of Cr100000 per ton and capable captains will always ensure they carry some in reserve.

### Critical Hit Repair

Engineer or Mechanic Effect	Spare Parts Required
1	1 ton
2	0.8 tons
3	0.6 tons
4	0.4 tons
5	0.2 tons
6	None

A destroyed weapon or item of equipment will need to be completely replaced, and cannot be repaired using spare parts.

**Hull Damage:** Each lost Hull point can be replaced with a Routine (6+) Mechanic check (1 hour, INT or EDU), consuming one ton of spare parts for every 10 Hull points repaired.

## SENSORS

All spacecraft have advanced sensors that allow them to spot potential threats and items of interest from possibly thousands of kilometres distant. They have limited automatic operation but, as always, it requires a human present to actually interpret the information in a useful way.

Under normal circumstances, an Electronics (sensors) check is all that is required to detect and identify a target that has moved into range of sensors. What information can be determined from this depends on the type of sensors employed.

The kind of sensors a ship possesses depends on the sensor package installed (as listed under Sensor Types opposite). Distances between ships and other objects in space is determined by range bands, as shown on the Range Bands table.

### Sensor Target

Range	Visual	Thermal	EM	Active Radar/Lidar	Passive Radar/Lidar	NAS	Densitometer
Adjacent	Full	Full	Full	Full	Limited	Full	Full
Close	Full	Full	Full	Full	Limited	Limited	Full
Short	Full	Full	Limited	Limited	Minimal	Minimal	Limited
Medium	Limited	Limited	Limited	Limited	Minimal	None	Minimal
Long	Limited	Limited	Minimal	Minimal	None	None	None
Very Long	Minimal	Minimal	Minimal	Minimal	None	None	None
Distant	Minimal	Minimal	None	None	None	None	None

### Sensor Detail

Detail	Visual	Thermal	EM	Active Radar/Lidar	NAS	Densitometer
Full	Fine details	Fine temperature gradations, individual heat sources on exterior	Individual systems	Fine details	Individual brain activity	Fine details
Limited	Shape and structure	Hot or cold spots	Powerful EM sources	Shape and structure	Level of activity	Internal structure
Minimal	Basic outline	Hot or cold overall	Presence or absence of activity	Basic outline	Presence or absence of activity	External structure



## Range Bands

Range Band	Distance
Adjacent	1 km or less
Close	1-10 km
Short	11-1,250 km
Medium	1,251-10,000 km
Long	10,001-25,000 km
Very Long	25,001-50,000 km
Distant	More than 50,000 km

Once the range has been determined, consult the Sensor Target and Sensor Detail tables to determine what information can be gleaned on the target from the sensors on board.

## Sensor Types

The following are the types of sensor commonly found on spacecraft across Tech Levels.

**Visual (all):** Electronically-enhanced telescopes.

**Thermal (all):** Picking up heat emissions.

**Radar/Lidar (all):** Detects physical objects. Active use bounces beams off a target and thus makes it easier to be seen (DM+2 to Electronics (sensors) checks to be detected in return).

**NAS (very advanced):** Neural Activity Scanner. Detects neural activity and intelligence.

**Densitometers (advanced):** Determines internal structure and makeup of an object through its natural gravity.

## SHIP COMPUTERS

See the table below for specialised ship computer software.

### Specialised Computers

Some ships, such as the Type-S Scout, have very specialised computers that allow them to run jump software beyond their normal rating. These are noted as /bis computers (such as the Model 1/bis installed within the Type-S) and can run Jump Control software as if their Rating was +5 higher.

A Model 1/bis computer (normal Rating 5, but Rating 10 for Jump Control software) can therefore run Jump Control/2 (requiring Rating 10).

## SHIP SOFTWARE

Ship software operates in exactly the same way as normal computer software but typically has a much higher bandwidth. Ship computers are fully capable of running normal software as well.

## SPACECRAFT SECURITY

Hijacking is one of the biggest threats faced by independent traders, especially those that carry passengers or travel to dangerous space. As the Travellers will likely face this threat (or be this threat at some point), it is worth looking at in some detail.

Program	TL	Bandwidth	Cost (MCr)	Effect
Manoeuvre/0	8	0	Included	Allows basic control of ship
Intellect	11	10	1	Allows a ship to understand and obey verbal commands.
Jump Control/1	9	5	0.1	Allows jumps of up to the specified number. Incorporates astrogation software and jump engine management.
Jump Control/2	11	10	0.2	
Jump Control/3	12	15	0.3	
Jump Control/4	13	20	0.4	
Jump Control/5	14	25	0.5	
Jump Control/6	15	30	0.6	
Evade/1	9	10	1	The computer reacts automatically to incoming fire, applying a negative DM equal to the Evade programs score to all attacks.
Evade/2	11	15	2	
Evade/3	13	25	3	
Fire Control/1	9	5	2	Allows the computer to fire a number of turrets per round equal to the listed number. Alternatively, it can give a positive DM to an attack equal to the listed number, or any combination of the two. For example, a ship with Fire Control/2 could make two automated attacks, grant DM+2 to a gunner making an attack, or make one automated attack with DM+1.
Fire Control/2	10	10	4	
Fire Control/3	11	15	6	
Fire Control/4	12	20	8	
Fire Control/5	13	25	10	
Auto-Repair/1	10	10	5	Allows the computer to make a number of repair attempts per round equal to the listed number. Alternatively, it can give a positive DM to a repair attempt equal to the listed number, or any combination of the two. Requires the ship to carry repair drones.
Auto-Repair/2	12	20	10	
Library	8	0	Included	Contains a wealth of data on numerous subjects.



## Cameras & Sensors

Most vessels have security cameras in public areas, such as the galley, cargo bay and lounge, but not in private staterooms (but these can be added). Cameras can be viewed from any terminal by an authorised person. Internal sensors on a ship are limited to environmental detectors like smoke alarms, and most ships are not calibrated to, say, detect heat traces or life signs within their own hull. It is possible to detect when a door is opened or closed, although these sensors can easily be disabled.

## Computers

The difficulty to hack into a ship's computer depends on the rating of the Security software running on it. Few ships have anything less than Hard (12+) Security, but often the security system will apply only to external connections, and a hacker inside the ship will only face Average (8+) Security software.

Gaining access to the ship's records requires an Average (8+) Electronics (computers) check. Convincing the computer you are a member of the crew is Difficult (10+). Overriding security systems is Hard (12+), and gaining control of key systems like navigation or power is Formidable (14+). All these are cumulative with the Security software DM, so trying to hack into the power core of a warship is going to incur a DM-6 penalty for the Security software on a Formidable (14+) check – at least.

## Locks

Doors, airlocks, lockers and other secure panels are locked. In general, external locks are tougher than internal ones (increasing the difficulty by one level). Locks used on spacecraft are generally one of the following.

**Mechanical:** Requiring a key or combination. These can be opened with an Average (8+) Mechanics check or by stealing a key/learning the combination.

**Electronic:** Requiring a keycard or combination. These can be opened with a Difficult (10+) Electronics (computers) check or by stealing a key/learning the combination.

**Biometric:** Requiring a voiceprint, DNA test, palm print or retina scan. These can be opened with a Hard (12+) Electronics (computers) check or by stealing a sample from an authorised person.

**Intelligent:** Intelligent locks recognise authorised crew. These can be opened with a Hard (12+) Electronics (computers) check or by hacking the ship's computer.



## Travel Calculations

The following calculations can be used to work out specific travel times if required – you are going to need a calculator for this!

**Time Required:**  $\text{Time} = 2 \times \text{Square Root of (distance/acceleration)}$

**Acceleration Required:**  $\text{Acceleration} = (\text{Distance} \times 4) / \text{Time}^2$

**Distance Travelled:**  $\text{Distance} = (\text{Acceleration} \times \text{Time}^2) / 4$



Any non-mechanical lock can be opened or closed remotely if the crew wishes to allow this option (but then the doors can also be hacked). Bulkhead doors (also called iris valves) on a ship are airtight but others, such as those leading to staterooms, are not.

## Security Systems

If a ship finds itself the target of hijacking or boarding, there are several security systems common to all vessels that can be employed by the crew.

**Alarms:** If an alarm is tripped (hull breach, fire, door being forced open, alarm button pressed), it will alert the crew. The location of the alarm will be shown on computer displays. The average passenger ship has several crew trained in combat; military ships will carry dedicated marines. Some vessels may even have security robots who respond automatically to alarms.

**Gravity:** It is possible to alter the artificial gravity on board. Reducing gravity to zero will limit actions to the level of an attacker's Athletics (dexterity) skill (see Zero Gravity on page 4). Gravity can also safely be increased up to 3G with an Electronics (computers) check, which will count as high gravity (see page 3).

**Tranq Gas:** Some ships carry tranq gas canisters in the air vents, which can be released automatically. These flood a compartment with gas that forces an END check each round, with a cumulative DM-1 every round. Any Traveller who fails the END check is knocked unconscious for 2D minutes.

**Venting Atmosphere:** If a compartment is connected to an airlock, then the air can be vented from that area. Travellers in that area must make a STR check to hang on and not be blown out into space, and will also begin to suffocate.



## Transit Times

Distance (km)	1G	2G	3G	4G	5G	6G
1,000	633 seconds	447 seconds	365 seconds	316 seconds	283 seconds	258 seconds
10,000	2,000 seconds	1,414 seconds	1,155 seconds	1,000 seconds	894 seconds	816 seconds
100,000	105 minutes	74 minutes	61 minutes	53 minutes	47 minutes	42 minutes
300,000 (1 light second)	183 minutes	129 minutes	105 minutes	91 minutes	82 minutes	73 minutes
400,000	211 minutes	149 minutes	122 minutes	106 minutes	94 minutes	86 minutes
1,000,000	333 minutes	236 minutes	192 minutes	167 minutes	149 minutes	136 minutes
10,000,000	17.6 hours	12.4 hours	10.1 hours	8.8 hours	7.9 hours	7.2 hours
30,000,000	30.42 hours	21.5 hours	17.5 hours	15.2 hours	13.6 hours	12.4 hours
45,000,000	37.3 hours	26.4 hours	21.5 hours	18.6 hours	16.7 hours	15.2 hours
100,000,000	55.6 hours	39.3 hours	32.1 hours	27.8 hours	24.8 hours	22.3 hours
150,000,000 (1 AU)	68 hours	48.11	39.2 hours	34 hours	30.3 hours	27.6 hours
255,000,000	88.7 hours	62.7 hours	51.2 hours	44.4 hours	39.7 hours	36.2 hours
600,000,000	136.1 hours	96.2 hours	68.0 hours	60.9 hours	60.9 hours	55.6 hours
900,000,000	166.7 hours	117.9 hours	83.4 hours	74.5 hours	74.5 hours	68.0 hours
1,000,000,000	7.3 days	5.2 days	3.7 days	3.3 days	3.3 days	2.9 days

## Common Distances for Traders

Object to Object	Distance	Time at 1G	Time at 2G
World Surface to Orbit	10,000 km	2,000 seconds	1,414 seconds
Orbiting Satellite	400,000 km	211 minutes	149 minutes
Close Neighbour World	45,000,000 km	37.3 hours	26.4 hours
Far Neighbour World	255,000,000 km	88.7 hours	62.7 hours
Close Gas Giant	600,000,000 km	136.1 hours	96.2 hours
Far Gas Giant	900,000,000 km	166.7 hours	117.9 hours

## TRAVEL TIMES

Spacecraft are extremely fast – however, space is very large and even with all their advanced technology, it still takes a long time to reach destinations. Worlds orbiting the same star are accessible by interplanetary travel, on ships operated by local entrepreneurs or with a variety of small craft.

Interplanetary travel takes time. The travel formulae can determine time required (if distance and acceleration are known), acceleration required (if distance and time are known), and distance travelled (if time and acceleration are known). All of these formulae use kilometres (which can be determined by Range Bands for short distances), and assume the ship is undertaking a journey from rest, that it accelerates continuously to midpoint of the trip, then decelerates to rest again. 1G is equal to approximately 10 metres per second per second.

While some of you may be very comfortable with such formulae, we know others will not be, and so many useful distances are summarised on the Transit Times table.

Commercial starships usually make two jumps per month. They spend one week in jump, followed by one week in the star system, travelling from the jump point to the local world, refuelling, marketing cargo, finding passengers, leaving the starport and proceeding to a jump point again. The week in the system usually provides some time for crew recreation and exploring the planet.

Non-commercial ships usually follow the same schedule of one week in jump and one week in a system. If haste is called for, a ship may refuel at a gas giant immediately, and re-jump right away. This allows the ship to make one jump per week, but makes no provision for cargo, passengers, or local stops.



# SPACE COMBAT

Clashes between spacecraft in *Traveller* can involve small, faster craft, zipping between asteroids as they snap laser blasts off at one another, or battles taking place over distances of thousands of kilometres, sometimes over long hours. These battles are slow, calculated affairs, with spears of brilliant light lancing out into the darkness across relativistic distances, aimed at where the enemy is predicted to be.

The former type of battle takes place at short range, often close enough for crews to visually sight their enemy through a viewport. This kind of close ranged 'knife fight' uses rules very similar to those used between vehicles, and is summarised at the end of this chapter. It can be likened to swirling aerial dogfights where pilots are flying by the seat of their pants in order to get a shot at the enemy.

Most space combat, however, will take place at ranges far beyond the visual, where distances are so great that even weapons that function at the speed of light have to adjust for relative motion. This kind of battle can be likened to submarine warfare, where decisions have to be weighed and the environment is both methodical and claustrophobic.

## COMBAT ROUNDS

Combat between spacecraft is similar to that between Travellers or vehicles, but uses a six minute combat round (rather than six seconds). Each Traveller on board can take up a particular position or duty on board, such as pilot, gunner or engineer. In each round, every Traveller will have the opportunity to perform actions or move between positions.

When spacecraft are involved in combat against Travellers or vehicles directly, or against other spacecraft at Close range (10km or less) use the Close Range Combat rules.

### Combat Steps

When spacecraft fight, instead of one ship completing all of its actions before you move onto the next, as happens in combat between Travellers and vehicles,

you instead go through the following steps in every combat round.

- 1. Manoeuvre Step:** In order of initiative, each ship manoeuvres based on its Thrust.
- 2. Attack Step:** In order of initiative, each ship can attack, using weapons or conducting boarding actions.
- 3. Actions Step:** In order of initiative, ships can perform other, miscellaneous actions, such as repairing damaged systems, jumping out of the system or launching craft.

Once the Actions Step is complete, the combat round ends and if there are still ships fighting, a new combat round begins with the Manoeuvre Step.

## CREW DUTIES

Every Traveller on board a ship who intends to take part in a battle must be assigned to one of the following duties. There can only be one pilot and one captain, but other duties may have multiple Travellers performing them, and Travellers can move between different duties during the battle.

**Pilot:** Flies the ship, responsible for changing course and making evasive manoeuvres.

**Captain:** Commands the ship, and can use Leadership and Tactics skills.

**Engineer:** Engineers can be assigned to the power plant, and manoeuvre and jump drives, or handle general damage control.

**Sensor Operator:** This position engages in electronic warfare and keeps track of enemy spacecraft.

**Turret Gunner:** Each turret has its own gunner. A Traveller must choose which turret he is manning at the start of the combat.

**Bay Gunner:** Each bay weapon has its own gunner.

**Marine:** Prepares to repel boarders, or to board enemy ships.

**Passenger:** Passengers are all Travellers who are not assigned a duty, and are assumed to be waiting in their staterooms.

A list of possible actions related to each duty can be found on page 36.



## Automated Duties

A ship's computer can cover several duties if it is running the appropriate software.

- Fire Control programs can either act as gunners or assist gunners.
- A ship equipped with repair drones and Auto-Repair software can act as damage control.
- A ship running an Intellect program and Expert Engineer (j-drive, m-drive or power) can act as an engineer.
- A ship running an Intellect program and Expert Pilot can act as the pilot.



## Facing and Fire Arcs

Most spacecraft are manoeuvrable enough to spin or rotate to face their enemies in combat and have weapons mounted in turrets with very wide fire arcs so, generally speaking, it is not important to track which way a spacecraft is facing as it is with vehicles. However, some spacecraft, particularly small craft such as fighters, have fixed weapon mounts and must actually point towards the target they are engaging. In this instance, it is important to keep track of where a spacecraft is pointing.



## STARTING A BATTLE

Before a battle begins, it is important to note where ships are relative to one another. In general, all that is required in space is to know how far away each ship is from its opponents. This is determined by using Range Bands, as described in the Combat chapter (*Book 1: Characters & Combat*) and repeated here for reference.

### Range Bands

Range Band	Distance
Adjacent	1 km or less
Close	1-10 km
Short	11-1,250 km
Medium	1,251-10,000 km
Long	10,001-25,000 km
Very Long	25,001-50,000 km
Distant	More than 50,000 km

Most hostile encounters in space will start at Very Long or Distant ranges, when the combatants first detect one another. However, actual combat will start when one of the combatants manages to move into range of their weapons, typically Long or Medium range. However, in

some circumstances ships might get a lot closer before hostilities begin, perhaps getting as near as Close range if a pirate successfully pretends to be an honest merchant, for example.

## INITIATIVE

Once the relative positions of ships have been determined and crew assigned to duties, the battle begins. Initiative is rolled for each ship as usual when the combat begins, but with spacecraft you roll the following:

2D + the pilot's Pilot skill + the ship's Thrust score

Ships with better pilots and bigger manoeuvre drives will therefore be quicker to act in space combat.

## Tactics (naval) Skill

In addition, the commander of each spacecraft (or the commander of a fleet, if more than one ship is present) may make a Tactics (naval) check at the start of a battle. The Effect of this check is added to the Initiative of the spacecraft (or fleet).

## Surprise

Under normal circumstances, surprise is very difficult to achieve in space, as there are few places to hide behind. However, damaged sensors or inattentive sensor operators can mean a ship can approach another without being spotted, and some ships may use asteroids or other astronomical objects to hide behind, while others may pretend to be harmless and then suddenly reveal their intentions.

If one ship does manage to surprise another, its opponent will not be able to take any actions in the first round of the combat.

## MANOEUVRE STEP

In order of initiative, each ship can allocate Thrust to either movement (closing or increasing the range between it and another ship) or combat manoeuvring (docking with another vessel, lining up a shot or dodging incoming fire).

All movement and combat manoeuvring is performed by the Traveller assigned to pilot duty.

## Movement

The amount of Thrust required to increase or decrease the Range Band between ships by one category, up or down, is shown on the Ship Movement table – the Thrust listed is the amount required to move from that Range Band to either the next closest or next most distant. A ship can spend Thrust over multiple rounds to close or open a category.



If two ships are travelling towards one another, then the proportion of their Thrusts devoted to movement are added together for the purposes of Range Band changes. If one ship is trying to escape another, then subtract the lower Thrust from the higher to work out the Range Band change – the faster ship will either gain on or pull away from the slower.

As will be readily apparent, it takes a lot of Thrust to move between Range Bands once ships get to Long range or further. This is because space is vast and even the most powerful ships take a long time to cross any significant distance. At these ranges, ships will rarely expend vital energy trying to change range unless they are looking to board a target or escape.

Note that once a spacecraft moves to within Close or Adjacent range of another, immediately start using the Close Range Combat rules.

## Combat Manoeuvring

Any remaining Thrust that has not been allocated for movement may be used for combat manoeuvring.

One point of Thrust allows a ship to do one of the following, and several of these manoeuvres may be attempted if enough Thrust is available. However, each manoeuvre may only be attempted once with the exception of Dodge Incoming Fire.

**Aid Gunners:** A pilot may attempt to aid his gunners by providing a more stable firing platform along the optimum attack vector. The pilot makes a Pilot check to start a task chain with his gunners, as described on page 60 of *Book 1: Characters & Combat*.

**Docking:** The pilot must make a successful Pilot check. If the other ship does not wish to be docked, then both ships must make opposed Pilot checks, with the ship trying to dock suffering a Bane. When a docking is successful, boarding actions can take place.

**Evasive Action:** Any remaining Thrust can be used as a reaction to dodge incoming fire. This is covered on page 31.

## ATTACK STEP

Once all ships have worked out their movement and combat manoeuvring, they can launch attacks! This is done in initiative order.

Attacking with weapons mounted on spacecraft uses the same rules as detailed in the Combat chapter (*Book 1: Characters & Combat*), with the following exceptions.

- Firing a spacecraft-mounted weapon uses the Gunner skill.
- The Range of weapons is noted in Range Bands, not metres.

Weapons on board a spacecraft are fired by Travellers assigned to gunner duty. However, a pilot may fire any weapons that are noted as being in fixed mounts (this is usually found on smaller craft that are not always large enough to accommodate turrets, such as fighters and shuttles).

## Firing Weapons

When a ship attacks another, it declares it is going to attack and selects a target. The target may then choose to dodge the incoming fire. The Traveller on gunner duty for the weapon being fired then makes an appropriate skill check and, as normal for any skill check, if he scores 8+, the attack is successful and damage is dealt to the target (see Damaging Spacecraft on page 34).

The standard skill check used when making an attack from a spacecraft are as follows.

2D + Gunner (appropriate speciality) + DEX DM

## Common Modifiers to Spacecraft Attacks

The following modifiers are commonly used to influence Gunner checks when attacking.

Bonuses		Penalties	
Short Range	+1	Long Range	-2
Using a Pulse Laser	+2	Very Long Range	-4
Using a Beam Laser	+4	Distant Range	-6

Range Band	Distance	Thrust Required	Example
Adjacent	1 km or less	1	Docked ships
Close	1-10 km	1	Nearby or dogfighting vessels
Short	11-1,250 km	2	Ships in same orbital path
Medium	1,251-10,000 km	5	Surface to orbit
Long	10,001-25,000 km	10	Near to a planet
Very Long	25,001-50,000 km	25	Within jump limit
Distant	More than 50,000 km	50	Distant ships



## Spacecraft Damage Scale

Spacecraft are larger and able to withstand a great deal more punishment than the average vehicle. They are also capable of mounting much larger weapons.

While spacecraft are theoretically capable of mounting vehicle-type weapons, such as autocannon and howitzers, they may also carry beam lasers, missile racks and other high-energy weapons, all of which are able to vaporise an unlucky Traveller or vehicle in a single shot.

To reflect this, a new scale of damage is used for Spacecraft weapons.

Note that if an ordinary weapon is mounted upon a spacecraft, the weapon still uses the ordinary (or Ground) scale – scale is reflected by the weapon being used, not what it is mounted upon.

Spacecraft scale affect two things. First, it is much easier to hit a spacecraft if you are using a Ground scale weapon (simply because it is that much larger), while it is much more difficult for a Spacecraft weapon to hit a Ground target.

Second, Spacecraft scale weapons cause a lot more damage. When Spacecraft weapons attack a Ground target, they multiply their damage by ten. So, for example, a beam laser that normally does 1D damage at Spacecraft scale will do 1D x 10 when shooting at a Ground target.

The reverse is true as well. A Traveller attacking a Spacecraft with a Ground scale weapon will divide its damage by ten (as always, rounding down).

This is all summarised in the Damage Scale table.

## Damage Scale

	Ground Weapon		Spacecraft Weapon	
Attacking a...	DM to hit	Damage	DM to hit	Damage
Ground Target	+0	x1	-2	x10
Spacecraft Target	+2	/10	+0	x1

Note that the multiplication or division of damage due to scaling is performed after all other modifiers for damage have been applied, including Effect and the Destructive trait.

When attacking a Ground target, Spacecraft weapons can be assumed to have the Blast 10 trait.

## Spacecraft Weapons

These are among the more common weapons fitted to spacecraft, whether as defensive systems used to deter pirates or those found on small military ships (the truly awesome weaponry mounted on capital ships can be found in *High Guard*).

All these weapons are Spacecraft scale and require the Gunner skill. Note that, for Spacecraft scale weapons, ranges are listed in Range Bands and they cannot attack targets that lie beyond their listed Range Band.

**Beam Laser:** A laser-based weapon that fires a continuous beam, allowing targets to be tracked and hit more easily. However, this does require more power to function and so is shorter ranged and does less damage than a pulse laser.

**Missile Rack:** Though missile racks require ammunition and the warheads take time to reach distant targets, they can be very powerful weapons and, when a range of warheads is available, extremely versatile too. Missiles use slightly different rules to other spacecraft weapons, which are covered on page 37. Each turret with one or more missile racks holds 12 missiles and costs Cr250000 to refill. It takes one round to reload a missile rack (see page 37).

**Pulse Laser:** Utilising capacitors to discharge its energy in a single powerful blast, the pulse laser is less accurate than its beam-based counterpart but is longer ranged and does more damage.

**Sandcaster:** Though mounted in turrets and of use against boarders, the sandcaster is primarily a defensive weapon used to protect ships from laser weapons. Each turret with one or more sandcasters holds 20 sand canisters and costs Cr25000 to refill. It takes one round to reload a sandcaster (see page 37).

## Mounting Weapons

A spacecraft weapon can be attached to a fixed mount or a turret. Fixed mounts can only be fired forward and, where present, are noted in the Common Spacecraft chapter.

Turrets are sometimes fitted to a spacecraft as standard but may be added to any ship that has a hull of 100 tons or more. Every 100 tons of the ship's hull allows one turret to be installed so, for example, a 600 ton ship could have up to six turrets installed.



## Turrets

Mount	TL	Tons	Cost
Single Turret	7	1	MCr0.2
Double Turret	8	1	MCr0.5
Triple Turret	9	1	MCr1

### Double and Triple Turrets

Some spacecraft are fitted with double or triple turrets, which allow two or three weapons to be mounted in the same turret. If these weapons are different (a pulse laser, missile rack and sandcaster in the same triple turret, for example), then only one type may be used to attack an enemy in a combat round.

However, if two or more weapons are of the same type, they may be fired together. One attack roll is made for all weapons being fired, but each additional weapon adds +1 per damage dice to the final damage total.

For example, if a triple turret with three pulse lasers is fired, it will only make one attack roll but will deal 2D+4 damage (two additional pulse lasers each adding +1 per damage dice).

Sandcasters can also be linked in this way, granting +1 to the damage negated by laser attacks for each additional sandcaster beyond the first.

Missiles are handled differently when in double or triple turrets and are always fired individually, so do not get the bonus above. See page 37 for missile combat.

### Damaging Spacecraft

Once the total amount of damage a weapon is causing has been calculated, applying the Effect of the attack roll to the damage rolled as normal, the Armour of the spacecraft is deducted.

The remaining damage is the total that is removed from the spacecraft's Hull. Once a spacecraft has been reduced to zero Hull, it is wrecked and becomes totally inoperable, and is beyond any repair. Those on board will find themselves without power or life support.

### Critical Hits

If an attack roll against a spacecraft has an Effect of 6 or higher *and* it causes damage (rather than just

## Critical Hits Location

2D	Location
2	Sensors
3	Power Plant
4	Fuel
5	Weapon
6	Armour
7	Hull
8	M-Drive
9	Cargo
10	J-Drive
11	Crew
12	Computer

bouncing off armour), a critical hit has been scored – some vital system has been damaged by the attack, reducing the effectiveness of the spacecraft.

If a critical hit has been inflicted upon a spacecraft, roll 2D and then consult the Critical Hits Location table. If a particular location does not apply to this spacecraft, roll again.

The Severity of the critical hit is equal to the damage the spacecraft has taken from the attack, divided by ten (rounding up). Consult the Critical Hit Effects table to determine the nature of the critical hit and how it affects the spacecraft. All effects are cumulative, and any extra damage caused by the effects of critical hits ignores the spacecraft's Armour.

If a spacecraft has already sustained a critical hit to a location that receives another, use the Severity of the new critical hit or the original plus one, whichever is higher. Once a location has reached Severity 6, it cannot suffer any more critical hits. Instead, the spacecraft will receive 6D extra damage every time the location suffers another critical hit.

### Sustained Damage

The systems on a ship are not only vulnerable to lucky hits. Sustained, continued punishment will cause failures as well.

A ship will suffer a severity 1 critical hit everytime it loses 10% (rounded up) of its starting hull.

## Spacecraft Scale Weapons

Weapon	TL	Range	Damage	Tons	Cost	Traits
Beam Laser	10	Medium	1D	-	MCr0.5	-
Missile Rack	7	Special	4D	-	MCr0.75	Smart
Pulse Laser	9	Long	2D	-	MCr1	-
Sandcaster	9	Special	Special	-	MCr0.25	-



## Critical Hit Effects

Location	Severity					
	1	2	3	4	5	6
Sensors	All checks to use sensors suffer DM-2	Sensors inoperative beyond Medium range	Sensors inoperative beyond Short range	Sensors inoperative beyond Close range	Sensors inoperative beyond Adjacent range	Sensors disabled
Power Plant	Thrust reduced by -1. Power reduced by 10%	Thrust reduced by -1. Power reduced by 10%	Thrust reduced by -1. Power reduced by 50%	Thrust reduced to zero. Power reduced to 0	Thrust reduced to zero, Hull Severity increased by +1. Power reduced to 0	Thrust reduced to zero, Hull Severity increased by +1D. Power reduced to 0
Fuel	Leak – lose 1D tons of fuel per hour	Leak – lose 1D tons of fuel per round	Leak – lose 1D x 10% of fuel	Fuel tank destroyed	Fuel tank destroyed, Hull Severity increased by +1	Fuel tank destroyed, Hull Severity increased by +1D
Weapon	Random weapon suffers Bane when used	Random weapon disabled	Random weapon destroyed	Random weapon explodes, Hull Severity increased by +1	Random weapon explodes, Hull Severity increased by +1	Random weapon explodes, Hull Severity increased by +1
Armour	Armour reduced by -1	Armour reduced by -D3	Armour reduced by -1D	Armour reduced by -1D	Armour reduced by -2D, Hull Severity increased by +1	Armour reduced by -2D, Hull Severity increased by +1
Hull	Spacecraft suffers 1D damage	Spacecraft suffers 2D damage	Spacecraft suffers 3D damage	Spacecraft suffers 4D damage	Spacecraft suffers 5D damage	Spacecraft suffers 6D damage
M-Drive	All checks to control spacecraft suffer DM-1	All checks to control spacecraft suffer DM-2, and Thrust reduced by -1	All checks to control spacecraft suffer DM-3, and Thrust reduced by -1	All checks to control spacecraft suffer DM-4, and Thrust reduced by -1	Thrust reduced to zero	Thrust reduced to zero, Hull Severity increased by +1
Cargo	10% of cargo destroyed	1D x 10% of cargo destroyed	2D x 10% of cargo destroyed	All cargo destroyed	All cargo destroyed, Hull Severity increased by +1	All cargo destroyed, Hull Severity increased by +1
J-Drive	All checks to use jump drive suffer DM-2	Jump drive disabled	Jump drive destroyed	Jump drive destroyed, Hull Severity increased by +1	Jump drive destroyed, Hull Severity increased by +1	Jump drive destroyed, Hull Severity increased by +1
Crew	Random occupant takes 1D damage	Life support fails within 1D hours	1D occupants take 2D damage	Life support fails within 1D rounds	All occupants take 3D damage	Life support fails
Computer	All checks to use computers suffer DM-2	Computer rating reduced by -1	Computer rating reduced by -1	Computer rating reduced by -1	Computer disabled	Computer destroyed



## REACTIONS

Just as in other forms of combat, those on board a spacecraft can perform reactions in response to the enemy they are fighting. Reactions can only be performed by Travellers assigned to specific duties, as described below.

### Evasive Action (Pilot)

The pilot of a spacecraft may dodge incoming attacks, so long as the spacecraft has unspent Thrust after movement and combat manoeuvring.

Each point of unspent Thrust will allow the spacecraft to attempt to dodge one attack. The attack suffers a negative DM equal to the pilots skill.

### Point Defence (Gunner)

Using a turret-mounted laser (beam or pulse), a gunner can destroy incoming missiles. Note that a weapon used for point defence cannot be used to make attacks in the same combat round, and vice versa. Point Defence may only be performed against missile salvos (see page 37) as they are about to make their attack roll against a target – missiles are too small and too fast to be targeted at greater ranges. A gunner may only attempt Point Defence against once every round.

The gunner must succeed at a Gunner (turret) check against any missile salvo that is about to make its attack roll against his spacecraft. The Effect of the check will remove that many missiles from the salvo. A double turret equipped with lasers provides DM+1 to this check, while a triple turret will provide DM+2

### Disperse Sand (Gunner)

While cheap and versatile, laser weapons are easily foiled by dispersed particles, or sand as it is often called. Sandcasters are designed to create temporary defences against incoming laser attacks.

Using a turret-mounted sandcaster, a gunner can attempt to block laser attacks. The gunner must succeed at a Gunner (turret) check against a laser weapon and, if successful, he will add 1D plus the Effect of his check to the ship's armour against that laser attack only. Each Disperse Sand reaction uses one canister of sand.

Sand may also be directed against incoming boarding parties. If the Gunner (turret) check is successful, each target in the boarding party suffers 8D point of damage at Personal scale.

## ACTIONS STEP

Once all ships have resolved their attacks, their crew can perform various actions. This is done in initiative order, and the actions a crewman can perform are determined by the duty he was assigned to.

### Improve Initiative (Captain)

The captain of the spacecraft may perform a Leadership check. The Effect of this check (even if it is negative!) is applied to the initiative of the spacecraft for the next round only.

### Jump (Engineer)

See Jump Travel on page 24. Jumping in combat is the same as jumping in normal conditions but the astrogation calculations have to be done in a hurry, incurring DM-2 on both the Astrogation and Engineer (j-drive) checks to bring the time down to 1D minutes (within one combat round).

### Offline System (Engineer)

Specific systems and weapons on board the ship can be powered down to reduce the Power point requirement on the power plant, allowing Power points to be used for other systems. A successful Engineer (power) check (1 round, EDU) will allow the engineer to shut down any number of systems, freeing up their Power points for subsequent rounds. It requires another round to bring any of these systems back online.

### Overload Drive (Engineer)

By overloading the manoeuvre drive, the engineer can lend the ship extra speed and manoeuvrability. A successful Difficult (10+) Engineer (m-drive) check (1 round, INT) will increase the ship's Thrust by one during the next round. If the check fails with an Effect of -6 or less, the manoeuvre drive suffers a critical hit with Severity 1, as detailed on page 34. This check suffers a cumulative DM-2 each time it is attempted after the first. This penalty can be removed by performing maintenance on the drive, a procedure that requires Engineer (m-drive) and 1D hours.

### Overload Plant (Engineer)

A favourite of engineers on action vids, the power plant can be overstressed on a temporary basis to provide the ship with more Power points. A successful Difficult (10+) Engineer (power) check (1 round, INT) will increase the ship's current Power points by +10% during the next round. If the check fails with an Effect of -6 or less, the power plant suffers a critical hit with Severity 1, as



detailed on page 34. This check suffers a cumulative DM-2 each time it is attempted after the first. This penalty can be removed by performing maintenance on the power plant, a procedure that requires Engineer (power) and 1D hours.

### Repair System (Engineer)

A Traveller on engineer duty can attempt to effect a quick repair to the effects of a critical hit. This requires an Average (8+) Engineer check (1 round, INT or EDU) with a negative DM equal to the Severity of the critical hit. A cumulative DM+1 is gained every round the Traveller works on repairing the same critical hit. If the spacecraft receives critical hit to the same location during this time, the Traveller must start again from the beginning with no positive DM.

Note that only the effects of the critical hit can be repaired, and these quick repairs will only last for 1D hours. Any Hull damage and destroyed equipment and weapons cannot be repaired this way and will require the spacecraft to leave combat.

### Reload Turret (Gunner)

During prolonged battles, turrets mounted with sandcasters or missile racks may run out of ammunition. A turret may be reloaded by any Traveller with the Gunner skill but it will be unable to make any attacks in that round.

### Sensor Lock (Sensor Operator)

An improved target lock may be obtained on an enemy spacecraft with a successful Electronics (sensors) check. Attacks made by the spacecraft against this target gain a Boon until the sensor lock is broken (see Electronic Warfare).

### Electronic Warfare (Sensor Operator)

A ship's sensor operator may attempt to jam the communications of an enemy by making an opposed Electronics (comms) check against the sensor operator in the target spacecraft. The same process may be used with the Electronics (sensors) skill to break a sensor lock.

### Boarding Action (Marine)

If two ships are at Adjacent range, it is possible to launch a boarding party to storm an enemy ship. Boarding actions are covered on page 39.

### Reassignment (Any)

Any Traveller may elect to change their assigned duty instead of performing any other action. They do nothing else in this round but will have adopted their new duty in the following round.

## MISSILE COMBAT

Unlike most weapons which travel at or close to the speed of light and so hit enemy ships almost instantly, missiles take time to cross the gulf of space. However, despite this drawback, missiles are capable of doing a great deal of damage when they hit an enemy ship.

### Launching Missiles

Missiles used against targets within Adjacent or Close ranges lose any Smart trait they possess, as there is not enough time for them to obtain a solid lock and take advantage of their advanced guidance systems.

Missiles are launched in salvos. A salvo is all the missiles launched by a ship against a single target in the same combat round. This could be a single missile from one turret or dozens from multiple turrets or bays (see High Guard for more information on weapon bays).

Missile salvos effectively have a Thrust of 10 and will reach their target a number of combat rounds after they have been fired, as shown on the Missile Flight table.

### Missile Flight

Range	Rounds to Impact
Medium and below	Immediate
Long	1
Very Long	4
Distant	10

Note that while missile salvos can be fired at Distant ranges, the attacking ship must have detected its target before they can be launched. Given the limited information that can be gained from sensors at this range, friendly fire incidents may be common among Travellers who are too trigger happy with their missiles.

If a missile has not reached its target within 10 rounds, it will run out of fuel and become inert.

### Countermeasures

Combat involving missiles creates a very tense atmosphere. The target spacecraft will likely have detected the launches and its crew will have several anxious minutes to watch the blips on their sensor screens gradually get closer and closer.

Fortunately, the crew need not be idle as they await their destruction as there are several countermeasures that can be taken against incoming missiles.

As missiles can take several rounds to reach their targets, you should keep track of how many



missiles remain within each salvo, reducing them as countermeasures take effect.

**Electronic Warfare:** A Traveller performing sensor operator duties on a spacecraft can use the Electronic Warfare action to destroy or misdirect incoming missiles before they impact his vessel or another ship within Close range.

The sensor operator must succeed at a Difficult (10+) Electronics (sensors) check (1 round, INT) in order to destroy or render inert incoming missiles within a single salvo. The Effect of this check will immediately remove that many missiles from the salvo.

Electronic Warfare may be performed upon a salvo multiple times over several rounds, with the effects being cumulative. However, a salvo may only be subjected to Electronic Warfare once per round, no matter how many sensor operators are available.

**Flee:** A spacecraft under missile attack may simply turn around and engage its manoeuvre drive, thrusting away from the missiles. Missiles are extremely long-ranged weapons and so it is not normally possible to outrange a missile in this way, but it can perhaps buy enough time to prolong electronic warfare or make a jump.

**Point Defence:** Finally, just as a salvo is about to strike, gunners may engage in point defence, as detailed on page 36.

## Missiles and Targets

When a missile salvo reaches its target, the missile makes an attack roll as normal. However, the Gunner skill of the Traveller(s) that fired the salvo is not used as a DM.

Instead, the number of missiles remaining in the salvo greatly affects their chances of making a successful attack. Apply DM+1 to the attack roll for every missile in the salvo.

Note that missiles almost always have the Smart trait (see page 75 of *Book 1: Characters & Combat*). For missiles, use the TL of the missile itself or that of the attacking ship, whichever is greater.

Finally, missiles launched at Distant range expend most of their fuel just reaching their target, leaving little to counter the target's manoeuvres. Missile salvos launched at Distant range suffer DM-6 to their attack rolls.

## Impact

If an attack roll for a missile salvo is successful, the target will sustain damage. Roll for damage as if for a single missile and deduct the target's armour as normal but do not apply the effect of the attack roll. Instead, any damage is then multiplied by the effect of the attack role.

## Variant Missiles

High Guard introduces different types of missiles that are more accurate, carry more fuel or are faster, but these rules suit all missiles included in this Core Rulebook. If a ship launches different types of missile at the same target in the same round, then all the missiles of each type are counted as a different salvo.

## CLOSE RANGE COMBAT

As mentioned at the start of this chapter, spacecraft fighting at ranges of less than 10km, or attacking vehicles or Travellers directly, use the normal six second combat round rather than the six minute round used for space combat.

Combat is conducted using the dogfighting rules for vehicles. Remember to take into account scaling differences for damage and attack rolls as described on page 33.

## Dogfights

Battling spacecraft within Close or Adjacent range of one another use these 'dogfight' rules. This is a series of manoeuvres whereby the pilot of one ship attempts to gain a position of advantage over another.

Combat rounds in dogfights are six seconds long and follow the normal combat rules as detailed on page 70 of *Book 1: Characters & Combat*. The combat steps detailed on page 30 are not used in dogfights.

In addition, spacecraft of 100 tons or more are not designed for this kind of 'knife-fight' and will suffer DM-6 on all attack rolls they attempt.

At the start of every round, the pilots of both spacecraft make opposed Pilot checks, with the following modifiers.

## Dogfighting Modifiers

Dogfighter	Modifier
Ship is 50 tons or more	-1
Ship is 100 tons or more	-2
For every 100 tons more than 100 tons	-1
For every additional enemy in the dogfight after the first	-1
Ship's Thrust	+1 per point of Thrust dedicated to dogfighting

A draw means that neither ship may attack the other with fixed weapons. The winner may choose to place his opponent's ship in a fire arc of his choice and may choose which of the opposing ship's fire arcs his own vehicle lies in.



In this way, the winner of a dogfight can ensure all his forward facing weapons can attack his enemy while ensuring he stays out of his opponent's forward facing (and the weapons present there). In addition, the winner of a dogfight gains DM +2 to all his attack rolls for this round while the loser suffers DM -2.

If the dogfight continues into the following combat round, the winner of the previous dogfight applies the difference between that round's opposed Pilot check as a positive DM to this round's opposed check.

## Dogfighting Vehicles

The dogfighting rules used for spacecraft are compatible with those used for vehicles, and may be used when a spacecraft enters an atmosphere and, perhaps, is forced to engage with jet fighters. However, even relatively nimble space fighters are designed for battle across enormous distances in the void of space and will find themselves at a disadvantage against smaller and more nimble vehicles.

In addition to the dogfighting modifiers listed, spacecraft suffer an additional DM-2 when dogfighting vehicles. In the spacecraft's favour, very powerful engines can counter this though a typical merchant will be very ponderous in a dogfight.

Spacecraft are capable of any Speed Band listed in the Vehicles chapter (*Book 1: Characters & Combat*), and will typically be going at Hypersonic speeds when entering an atmosphere.

## BOARDING ACTIONS

There is little in space combat more exciting and terrifying than a boarding action. Marines launch themselves from a closely manoeuvring ship or dedicated small craft, and hurl themselves at an enemy

vessel in an attempt to gain entry and pacify the crew. These actions lead to vicious firefights with high-powered weaponry being used in the tight confines of a ship's corridors.

Once two ships are within less than 1km of each other (Adjacent range), any marines on board can launch a boarding action during the Actions Step. A boarding action takes 2D rounds to complete, after which its results are decided.

## Resolving a Boarding Action

To resolve a boarding action, both sides roll 2D, apply the following modifiers and then the defender deducts his total from that of the attacker. The final score is then compared on the Boarding Actions table.

Superior Armour	+1
Superior Weaponry	+1
Superior Skills and Tactics	+2
Superior Numbers	+1
Vastly Superior Numbers	+3
Defender has no Marines on duty	-2

At his option, the referee may like to continue playing out the boarding action at the Personal scale on any 'fighting continues' result. The attackers will have successfully gained entry to the enemy ship and will now be desperately trying to expand their way out of the beachhead. This will be an opportunity for the Travellers to make their own decisions when fighting the crew of the enemy ship and of what targets they will try to reach.

*High Guard* includes detailed rules for conducting boarding actions on the Personal scale, allowing you to play through a blow-by-blow scenario that sees the Travellers taking over an enemy ship or desperately trying to repel boarders.

## Boarding Actions

Total	Result
-7 or less	The attackers are defeated. If the attacker's ship is docked with the defender's, the defenders may mount a new boarding action of their own and gain DM+4 on the roll to resolve it.
-4 to -6	The boarding action is defeated. The attackers must retreat back to their own ship or space – if they are unable to do so, they are killed or captured.
-1 to -3	Fighting continues. Resolve the boarding again in another 1D rounds, but the defender gains DM+2 to his roll. The ship being boarded loses 2D Hull.
0	Fighting continues. Resolve the boarding again in another 1D rounds.
1 to 3	Fighting continues. Resolve the boarding again in another 1D rounds, but the attacker gains DM+2 to his roll. The ship being boarded loses 2D Hull.
4 to 6	The boarding action is successful and the ship being boarded suffers 1D damage. The attackers may take control of the ship after another 2D rounds of pacification.
7 or more	The attackers storm the enemy ship and take control of it immediately.



# C H A P T E R - F O U R COMMON SPACECRAFT

Space ships are constructed and sold at shipyards throughout the galaxy. Any class A starport has a shipyard which can build any kind of ship, including a starship with Jump drives; any class B starport can build a small craft and ships which do not have jump drives. The military procures vessels through these yards, corporations buy their commercial vessels from these shipyards, and private individuals can purchase ships they have designed through them as well. The major restriction on the purchase of ships is money.

All the spacecraft in this chapter are in common use throughout the Third Imperium and equivalent designs will be found in most other universes too.

## OLDER SHIPS

Many ships serve for decades or even centuries before being scrapped. Travellers and free traders are often forced by necessity to purchase outdated and damaged vessels instead of new and pristine ships. Travellers purchasing an outdated ship may do so by rolling on the Outdated Ships table.

### Outdated Ships

2D	Age of Ship	Purchase Discount	Rolls on Spacecraft Quirks Table
2	Less than 5 years	5%	None
3	6-10 years	10%	1
4	11-20 years	15%	2
5	21-30 years	20%	3
6-8	31-40 years	25%	4
9	41-50 years	30%	5
10	51-75 years	35%	6
11	76-100 years	40%	7
12	More than 100 years	50%	10

### Spacecraft Quirks

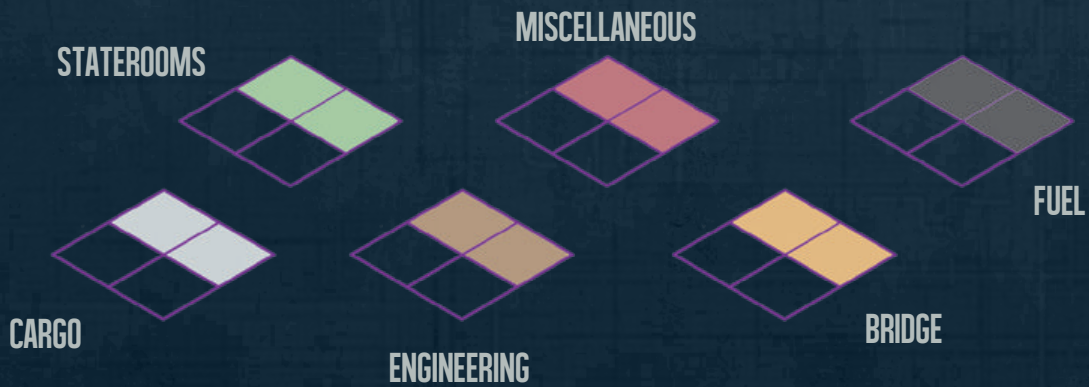
2D	Trader	Military	Other
2	Black-listed: Trader will be impounded in several systems. DM-1 to all Broker checks.	Severely Damaged: -1 Hull.	Leaky Reactor Core: Roll 2D when the ship jumps. On a 12, all crew suffer 2D x 20 rads.
3	Well maintained: Reduce all maintenance costs by 50%	Upgrade sensors to next best type.	Luxurious starship: DM+1 to all Steward checks
4	Vessel contains concealed smuggling compartments.	Vessel is equipped with an extra turret, if possible.	Library computer contains erroneous information.
5	Cargo bay is tainted by chemical spills and leaks. Vulnerable cargoes may be damaged in transit.	Vessel was involved in a notorious battle, and has enemies who wish to destroy it.	Vessel contains disturbing psionic echoes.
6	Damaged sensors: DM-1 to all Electronics (sensors) checks		
7	DM-1 to all repair attempts		
8	Double maintenance costs		
9	Severely Damaged: -10% Hull		
10	Damaged thrusters: DM-1 to all Pilot checks		
11	Ship is a famous and respected trader, with a good reputation.	Ship served with distinction, and has a good reputation in the navy.	Library computer contains secret or unusual information.
12	Upgrade computer to next best type	Add a weapon costing up to MCr2	Upgrade sensors to next best type



# ISOMETRIC DECKPLAN KEY

	BUNK		HATCH		FUEL PROCESSOR
	FRESHER		IRIS VALVE (WALL)		POWER PLANT
	WORKSTATION		IRIS VALVE (FLOOR/CEILING)		JUMP DRIVE
	G-CHAIR		INTERNAL WALL		MANEUVER DRIVE
	LOW BERTH		HULL		
	CRATE				

# ISOMETRIC FLOORPLAN





# FAR TRADER

(TYPE-A2)

TL12		TONS	COST (MCR)
Hull	200 tons, Streamlined	-	12
Armour	Crystaliron, Armour: 2	5	1.2
M-Drive	Thrust 1	2	4
J-Drive	Jump-2	15	22.5
Power Plant	Fusion, Power 75	5	5
Fuel Tanks	4 weeks operation, J-2	41	-
Bridge		10	1
Computer	Computer 5/bis	-	0.045
Sensors	Civilian Grade	1	3
Weapons			
Systems	Fuel Scoop		
	Fuel Processors (40/tons day)	2	0.1
	Cargo Crane	3	3
Staterooms	Standard x 10	40	5
	Low Berths x 6	3	0.3
Software	Jump Control/2	-	0.2
	Library	-	-
	Manoeuvre/0	-	-
Common Areas		9	0.9
Cargo		64	-
<b>TOTAL: MCR 52.4205</b>			

**CREW**  
PILOT, ASTROGATOR,  
ENGINEER, MEDIC,  
STEWARD

**RUNNING COSTS**  
**MAINTENANCE COST:**  
Cr4368/month  
.....  
**PURCHASE COST:**  
MCR52.4205

**POWER REQUIREMENTS**

20  
MANOEUVRE  
DRIVE

40  
BASIC SHIP  
SYSTEMS

40  
JUMP DRIVE

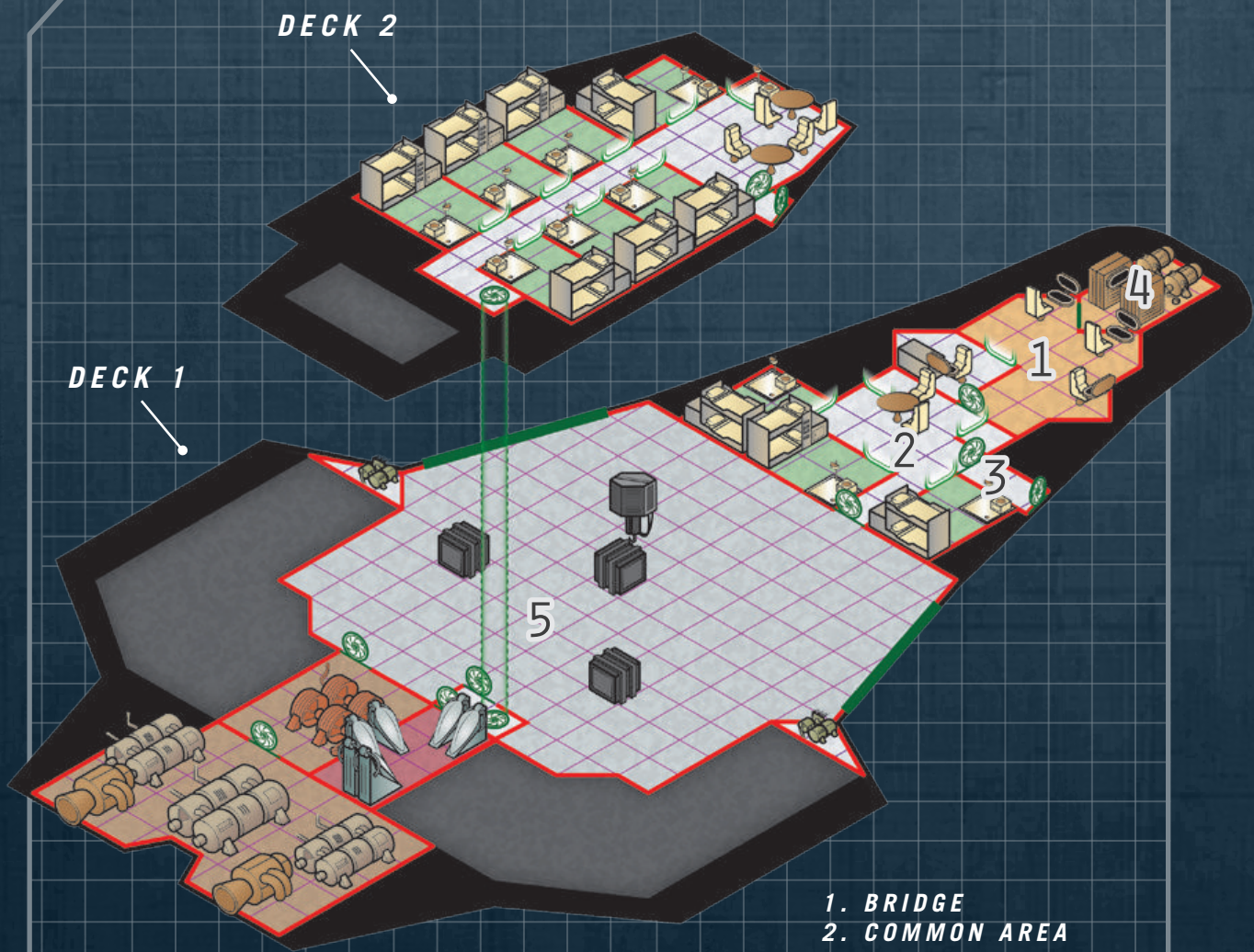
1  
SENSORS



80  
HULL POINTS

While nominally a modified free trader, the far trader has a series of modifications that have become accepted as standard, and many free traders are either modified to this specification or are built this way from new. The far trader swaps cargo space and low berths for a larger jump drive and fuel tank, allowing it to reach systems a basic free trader cannot travel to. While less cargo can mean less profits, the ability to reach further systems or to travel between stars at a faster rate can more than make up for this in the hands of a clever captain.





- 1. BRIDGE
- 2. COMMON AREA
- 3. AIRLOCK
- 4. AVIONICS
- 5. CARGO BAY



# FREE TRADER

(TYPE-A)

TL12		TONS	COST (MCr)
<b>Hull</b>	200 tons, Streamlined	-	12
<b>Armour</b>	Crystaliron, Armour: 2	5	1.2
<b>M-Drive</b>	Thrust 1	2	4
<b>J-Drive</b>	Jump-1	10	15
<b>Power Plant</b>	Fusion, Power 75	5	5
<b>Fuel Tanks</b>	4 weeks operation, J-1	21	-
<b>Bridge</b>		10	1
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Civilian Grade	1	3
<b>Weapons</b>		-	-
<b>Systems</b>	Fuel Scoop	-	-
	Fuel Processors (20/tons day)	1	0.05
	Cargo Crane	3	3
<b>Staterooms</b>	Standard x 10	40	5
	Low Berths x 20	10	1
<b>Software</b>	Jump Control/1	-	0.1
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		11	1.1
<b>Cargo</b>		81	-
<b>TOTAL:</b>			<b>MCr 51.48</b>

## CREW

PILOT, ASTROGATOR,  
ENGINEER, MEDIC,  
STEWARD

## RUNNING COSTS

**MAINTENANCE COST**  
Cr4290/month

•••••  
**PURCHASE COST**  
MCr51.48

## POWER REQUIREMENTS

20

MANOEUVRE  
DRIVE

40

BASIC SHIP  
SYSTEMS

20

JUMP DRIVE

1

SENSORS

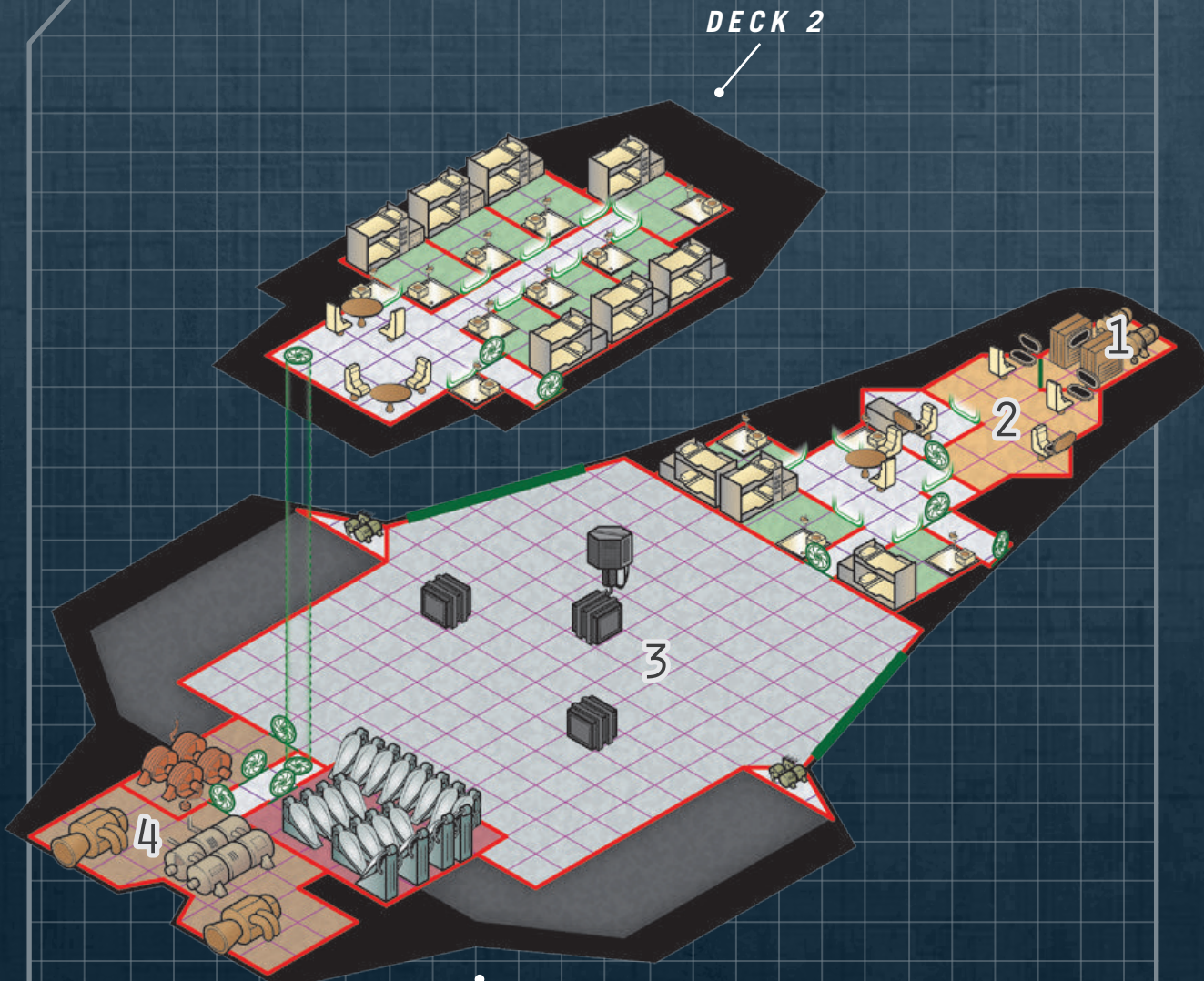


80

HULL POINTS

Using a 200-ton hull, the free trader is an elementary interstellar merchant ship designed to ply the space lanes while carrying a mixture of cargo and passengers. It is the archetypal tramp freighter and common among adventuring groups and mercenary bands, often retrofitted with turrets, weapons and other 'special' modifications. As such, actual specifications can vary wildly, often being proportional to the age of the ship, but the free trader presented here is typical of a vessel fresh out of the shipyard.





DECK 2

DECK 1

- 1. AVIONICS
- 2. BRIDGE
- 3. CARGO
- 4. ENGINEERING



# LABORATORY SHIP

(TYPE-L)

TL12		TONS	COST (MCr)
<b>Hull</b>	400 tons, Standard	-	20
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 2	8	16
<b>J-Drive</b>	Jump-2	25	37.5
<b>Power Plant</b>	Fusion, Power 180	12	12
<b>Fuel Tanks</b>	4 weeks operation, J-2	82	-
<b>Bridge</b>		20	2
<b>Computer</b>	Computer 10	-	0.16
<b>Sensors</b>	Improved	3	4.3
<b>Weapons</b>		-	-
<b>Systems</b>	Probe Drones x 15	3	1.5
	Docking Space (40 tons)	44	11
	Pinnacle	-	8.712
	Laboratories	100	25
	Docking Space (4 tons)	5	1.25
	Air/Raft	-	0.25
	ATV (stored in Pinnacle)	-	0.155
<b>Staterooms</b>	Standard x 20	80	10
<b>Software</b>	Jump Control/2	-	0.2
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		15	1.5
<b>Cargo</b>		3	-

**TOTAL: MCr 136.3743**

## CREW

PILOT, ASTROGATOR,  
ENGINEER, MEDIC

## RUNNING COSTS

**MAINTENANCE COST**  
Cr11365/month

•••••  
**PURCHASE COST**  
MCr136.3743

## POWER REQUIREMENTS

80

MANOEUVRE  
DRIVE

80

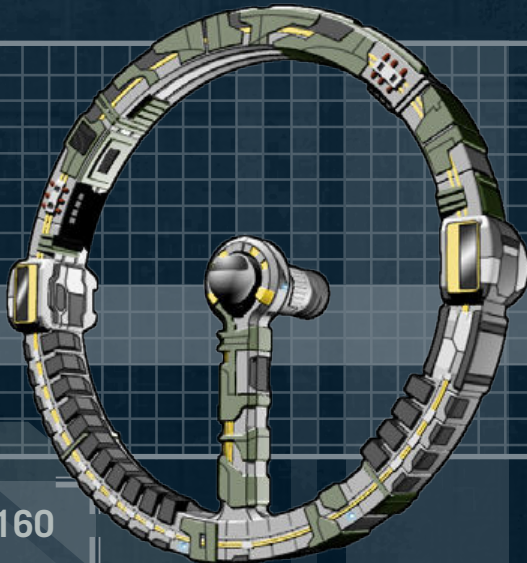
BASIC SHIP  
SYSTEMS

80

JUMP DRIVE

4

SENSORS

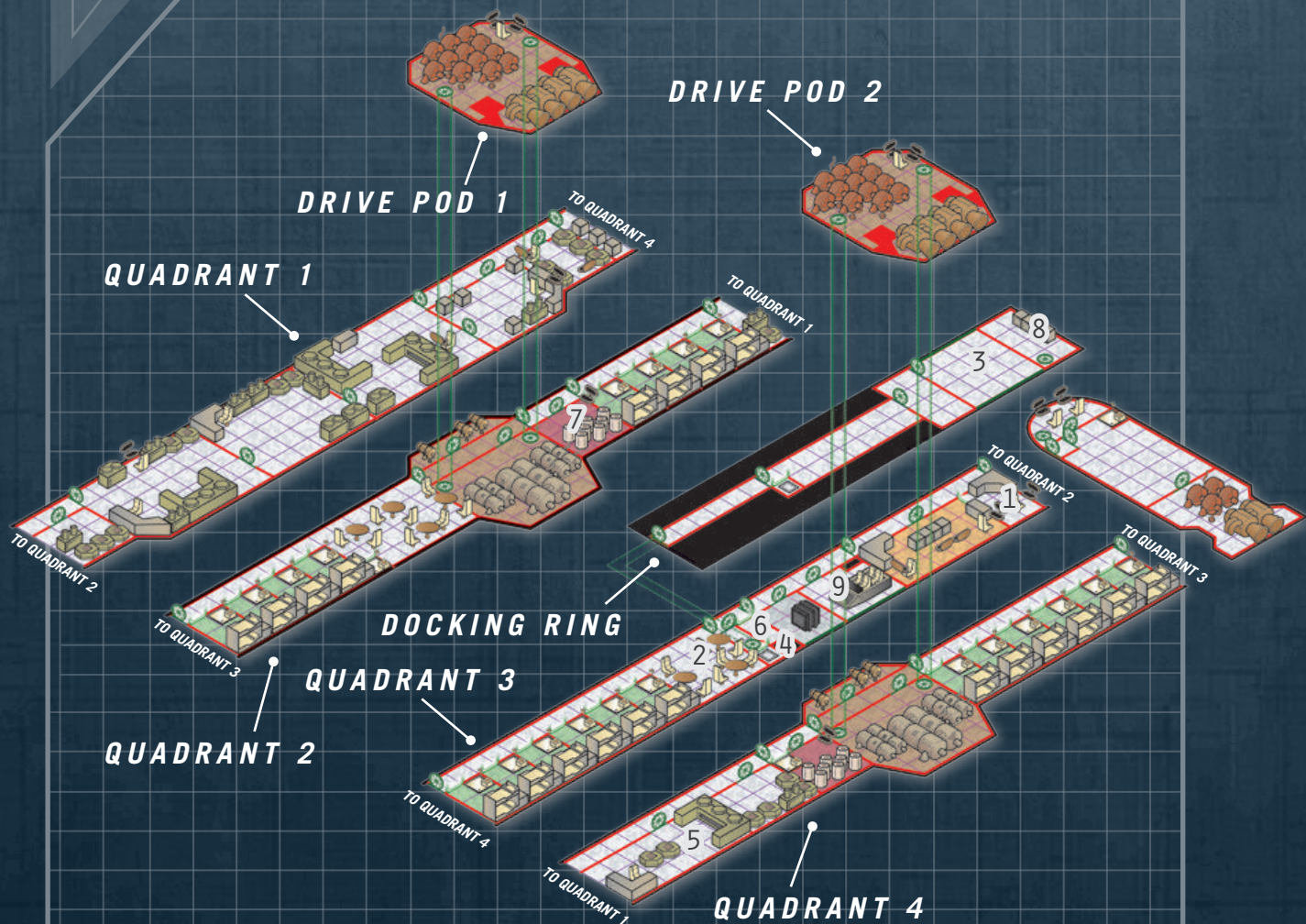


160

HULL POINTS

A highly specialised vessel, the laboratory ship is built to transport scientists and their equipment across the stars in order to conduct research, usually in remote locations. The ship itself is fitted with highly advanced sensors, while a pinnacle can carry an ATV down to a planet's surface in order to conduct field expeditions. A special feature of this ship is that it is built so internal gravity can be created by spinning the hull. This is done to permit experiments to be carried out that might otherwise be affected by the gravitic plates installed as standard on all ships.





- 1. OFFICE
- 2. COMMON AREA
- 3. PINNACE DOCKING SPACE
- 4. LIFT
- 5. LABORATORIES
- 6. AIRLOCK
- 7. PROBE DRONES
- 8. MAINTENANCE BAY
- 9. AIR RAFT DOCKING SPACE



# MERCENARY CRUISER

(TYPE-C)

TL12		TONS	COST (MCr)
<b>Hull</b>	800 tons, Sphere	-	32
<b>Armour</b>	Crystaliron, Armour: 4	40	6.4
<b>M-Drive</b>	Thrust 3	24	48
<b>J-Drive</b>	Jump-3	65	97.5
<b>Power Plant</b>	Fusion, Power 750	50	50
<b>Fuel Tanks</b>	4 weeks operation, J-3, fuel for Cutters	252	-
<b>Bridge</b>		20	4
<b>Computer</b>	Computer 20/fib	-	7.5
<b>Sensors</b>	Military Grade	2	4.1
<b>Weapons</b>	Triple Turrets x 8	8	8
<b>Systems</b>	Docking Space (4 tons)	5	1.25
	Air-Raft	-	0.25
	Docking Space (50 tons)	55	13.75
	Modular Cutter	-	10.287
	Docking Space (50 tons)	55	13.75
	Modular Cutter	-	10.287
	Repair Drones	8	1.6
	ATV x 2 (on cutters)	-	0.31
<b>Staterooms</b>	Standard x 25	100	12.5
<b>Software</b>	Auto-Repair/2	-	10
	Evade/1	-	1
	Fire Control/1	-	2
	Jump Control/3	-	0.3
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		44	4.4
<b>Cargo</b>		72	-
<b>TOTAL: MCr 305.2656</b>			

## CREW

PILOT, ASTROGATOR, 3  
ENGINEERS, MEDIC

## RUNNING COSTS

**MAINTENANCE COST**  
Cr25439/month

•••••  
**PURCHASE COST**  
MCr305.2656

## POWER REQUIREMENTS

240

MANOEUVRE  
DRIVE

160

BASIC SHIP  
SYSTEMS

240

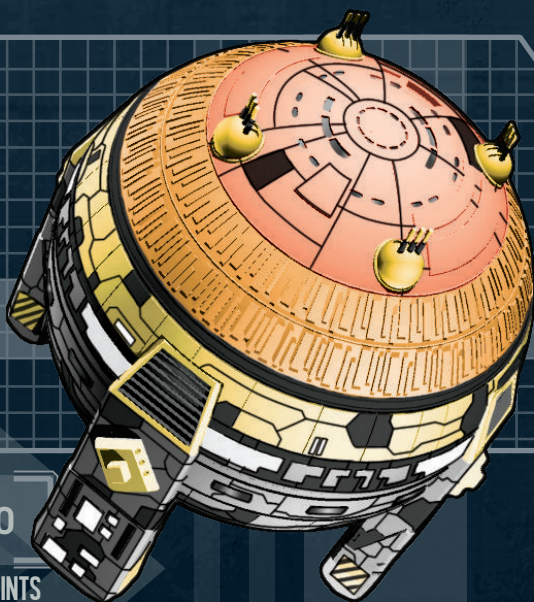
JUMP DRIVE

2

SENSORS

8

TURRETS

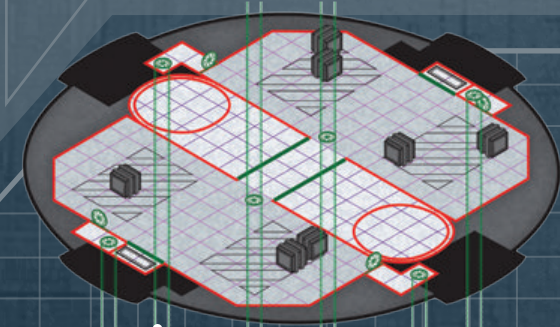


320

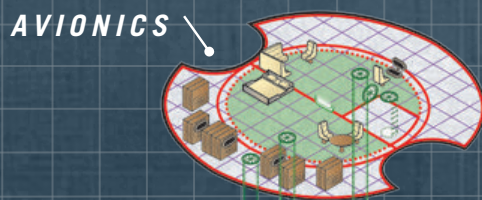
HULL POINTS

The mercenary cruiser is built to carry small troop units for corporate, governmental or, more commonly, mercenary operations. It has enough space to carry a combat platoon, plus crew and support personnel, along with their equipment, albeit in fairly cramped confines. The platoon can be deployed to a planet's surface within the two modular cutters housed inside the ship, and can then disembark using the ATVs the two cutters carry. Turrets are fitted as standard but while shipyards do not generally include weapons, it is a rare mercenary cruiser that is not armed to the teeth.

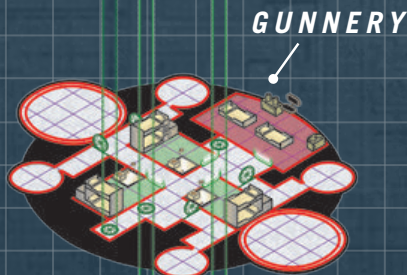




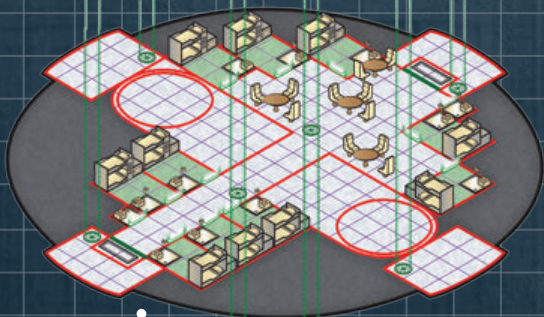
CARGO DECK



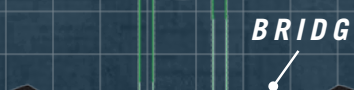
AVIONICS



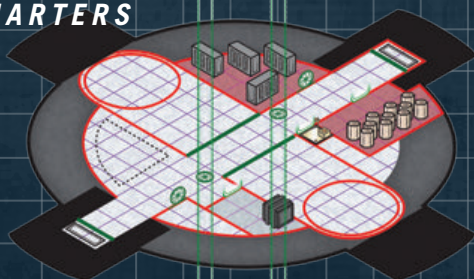
GUNNERY



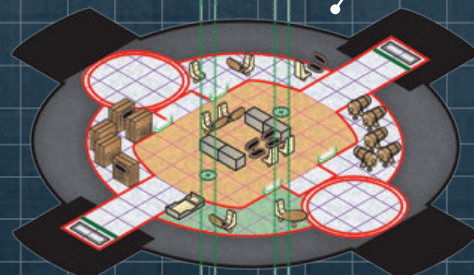
QUARTERS



BRIDGE

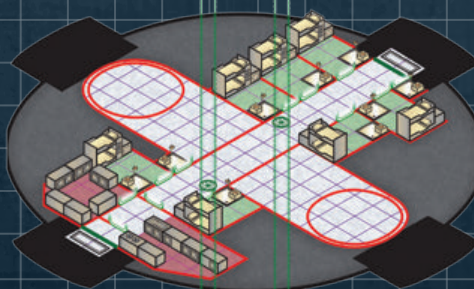


DRIVE DECK



BRIDGE

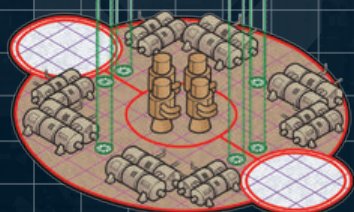
MARSHALLING DECK



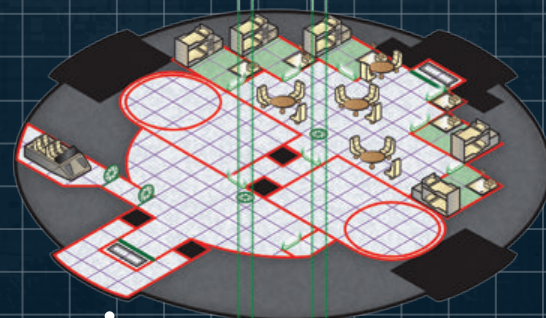
QUARTERS



DRIVE DECK



LOWER DRIVE DECK



QUARTERS



# PATROL CORVETTE

(TYPE-T)

TL12		TONS COST (MCr)	
<b>Hull</b>	400 tons, Streamlined	-	24
<b>Armour</b>	Crystaliron, Armour: 4	20	4.8
<b>M-Drive</b>	Thrust 4	16	32
<b>J-Drive</b>	Jump-3	35	52.5
<b>Power Plant</b>	Fusion, Power 405	27	27
<b>Fuel Tanks</b>	4 weeks operation, J-3, plus Ship's Boat	124	-
<b>Bridge</b>		20	2
<b>Computer</b>	Computer 15	-	2
<b>Sensors</b>	Military Grade	2	4.1
<b>Weapons</b>	Two Triple Turrets (Pulse Lasers)	2	8
	Two Triple Turrets (Missile Racks)	2	6.5
<b>Systems</b>	Docking Space (30 tons)	33	8.25
	Ship's Boat	-	7.272
	Docking Space (15 tons)	17	4.25
	G/Carrier	-	11.58
	Fuel Scoop	-	-
	Fuel Processors (80/tons a day)	4	0.2
<b>Staterooms</b>	Standard x 12	48	6
	Low Berths x 4	2	0.2
<b>Software</b>	Evade/1	-	1
	Fire Control/1	-	2
	Jump Control/3	-	0.3
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		10	1
<b>Cargo</b>		38	-

TOTAL: MCr 184.4568

## CREW

PILOT, ASTROGATOR, 2 ENGINEERS, MEDIC, 4 GUNNERS, 8 MARINES

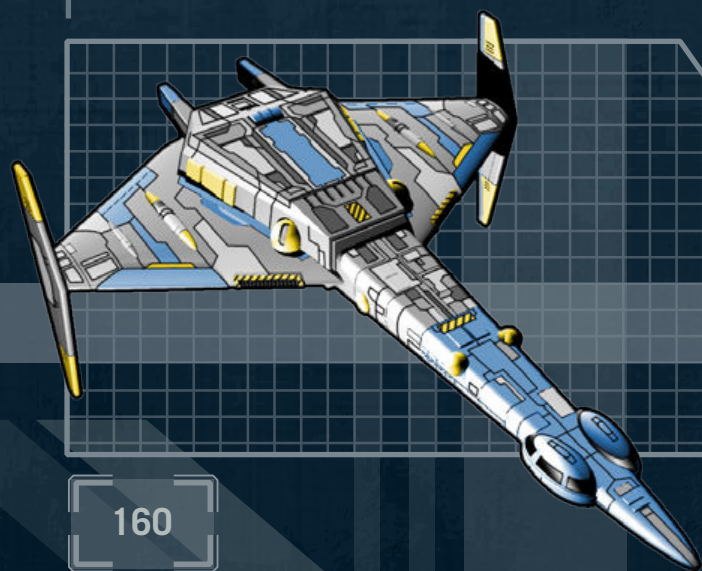
## RUNNING COSTS

MAINTENANCE COST  
Cr15371/month

PURCHASE COST  
MCr184.4568

## POWER REQUIREMENTS

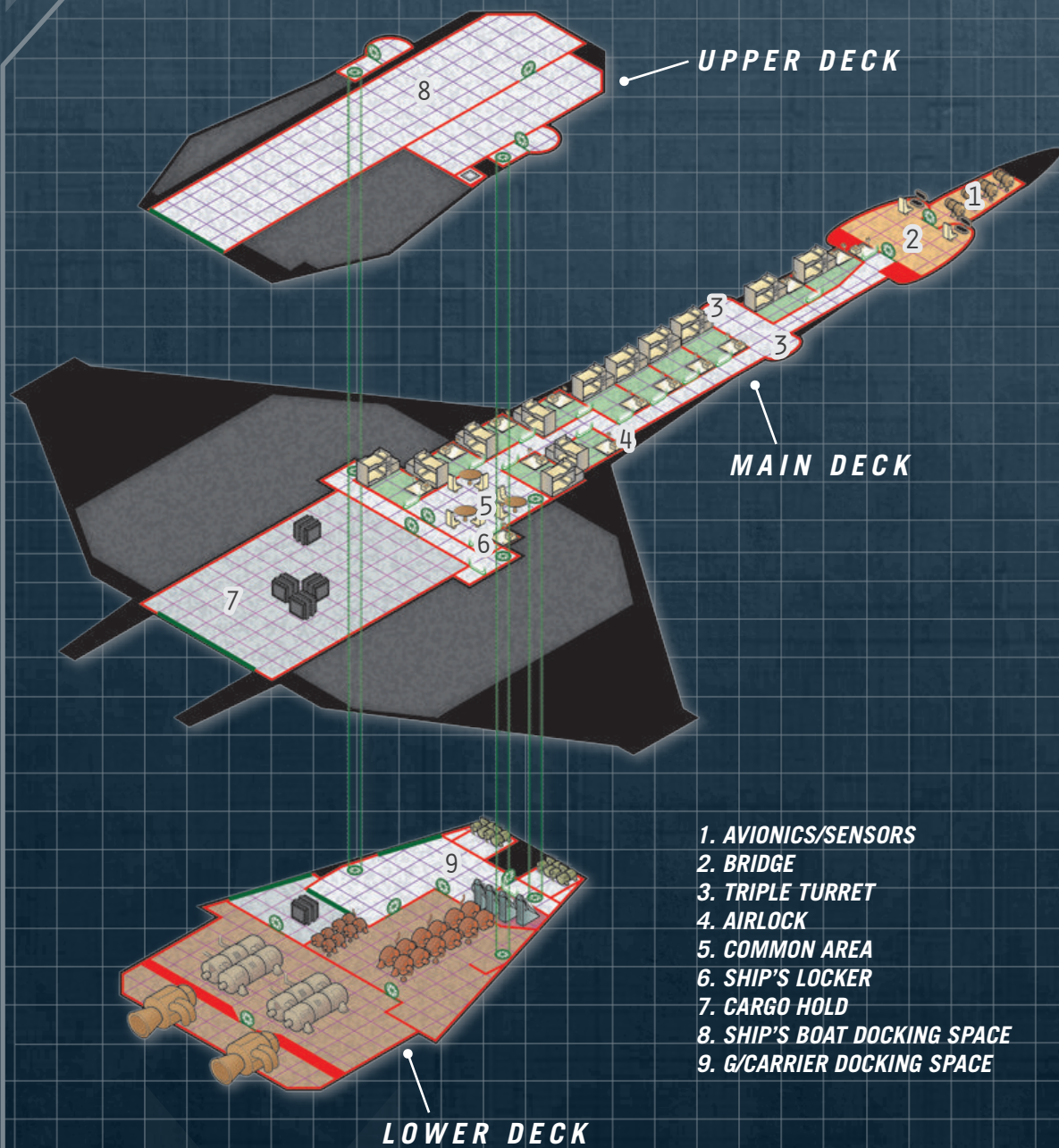
160 MANOEUVRE DRIVE	80 BASIC SHIP SYSTEMS
120 JUMP DRIVE	2 SENSORS
28 WEAPONS	



160  
HULL POINTS

The patrol corvette is used by military organisations as a cheap but effective vessel for customs patrols, anti-piracy work and system defence. Despite being only a 400 ton hull, this corvette remains more than a match for typical pirate vessels of a similar size. The auxiliary ship's boat and G/carrier on board, combined with a streamlined hull, allow the patrol corvette to pursue targets through atmospheres and down onto planetary surfaces, ensuring there is no escape.







# SAFARI SHIP

(TYPE-K)

TL12		TONS COST (MCR)	
<b>Hull</b>	200 tons, Streamlined	-	12
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 1	2	4
<b>J-Drive</b>	Jump-2	15	22.5
<b>Power Plant</b>	Fusion, Power 105	7	7
<b>Fuel Tanks</b>	4 weeks operation, J-2	41	-
<b>Bridge</b>		10	1
<b>Computer</b>	Computer 5/bis	-	0.045
<b>Sensors</b>	Civilian Grade	1	3
<b>Weapons</b>	Double Turret	1	0.5
<b>Systems</b>	Docking Space (20 tons)	22	5.5
	Launch	-	5.607
	Docking Space (4 tons)	5	1.25
	Air/Raft	-	0.25
	Fuel Scoop	-	-
	Fuel Processors (40/tons a day)	2	0.1
	Multi-Environment Space	8	0.5
	Multi-Environment Space	8	0.5
	ATV (on launch)	-	0.054
<b>Staterooms</b>	Standard x 11	44	5.5
<b>Software</b>	Jump Control/2	-	0.2
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		13	1.3
	Trophy Lounge	7	0.7
<b>Cargo</b>		14	-
<b>TOTAL: MCR 71.506</b>			

## CREW

PILOT, ASTROGATOR,  
ENGINEER, MEDIC,  
STEWARD

## RUNNING COSTS

**MAINTENANCE COST**  
Cr5959/month

•••••  
**PURCHASE COST**  
MCR71.506

## POWER REQUIREMENTS

20

MANOEUVRE  
DRIVE

40

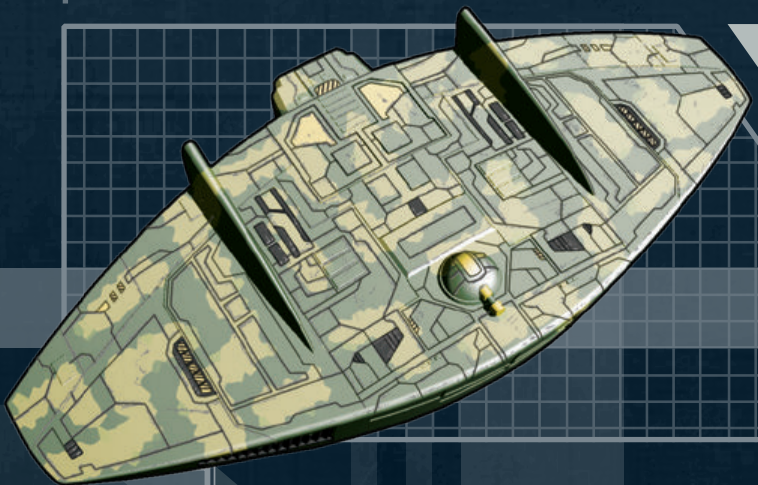
BASIC SHIP  
SYSTEMS

40

JUMP DRIVE

1

SENSORS



80

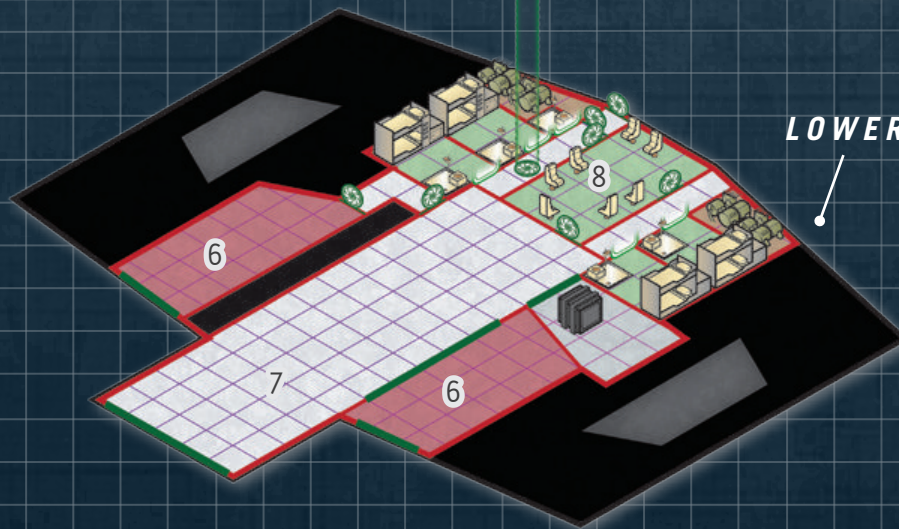
HULL POINTS

Though at first appearance uniquely specialised, the safari ship is relatively common throughout the galaxy. It is primarily designed as an excursion vessel, capable of conducting trophy-taking expeditions (photographic or real) to distant worlds, all in a high degree of comfort. Indeed, some owners will outfit their safari ship to higher standards of luxury than many yachts. Included within the hull are two holding tanks with variable environments for live specimens, and a trophy lounge which makes for a very comfortable mess area for passengers and crew. While the ship is streamlined and can land planetside, a launch and ATV permit expeditions across a planet's surface without requiring the whole vessel to leave orbit.





**MAIN DECK**



**LOWER DECK**

- 1. AIR/RAFT DOCKING SPACE
- 2. DOUBLE TURRET
- 3. OFFICE
- 4. COMMON AREA
- 5. SHIP'S LOCKER
- 6. MULTI-ENVIRONMENT SPACE
- 7. LAUNCH DOCKING SPACE
- 8. TROPHY LOUNGE



# SCOUT/COURIER

(TYPE-S)

TL12		TONS	COST (MCR)
<b>Hull</b>	100 tons, Streamlined	-	6
<b>Armour</b>	Crystaliron, Armour: 4	5	1.2
<b>M-Drive</b>	Thrust 2	2	4
<b>J-Drive</b>	Jump-2	10	15
<b>Power Plant</b>	Fusion, Power 60	4	4
<b>Fuel Tanks</b>	12 weeks operation, J-2	23	-
<b>Bridge</b>		10	0.5
<b>Computer</b>	Computer 5/bis	-	0.045
<b>Sensors</b>	Military Grade	2	4.1
<b>Weapons</b>	Double Turret	1	0.5
<b>Systems</b>	Fuel Scoop	-	-
	Fuel Processors (40/ tons a day)	2	0.1
	Probe Drones x 10	2	1
	Docking Space (4 tons)	5	1.25
	Air-Raft	-	0.25
	Workshop	6	0.9
<b>Software</b>	Jump Control/2	-	0.2
	Library	-	-
	Manoeuvre/O	-	-
<b>Staterooms</b>	Standard x 4	16	2
<b>Cargo</b>		12	-
<b>TOTAL: MCR 36.9405</b>			

## CREW

PILOT, ASTROGATOR,  
ENGINEER

## RUNNING COSTS

**MAINTENANCE COST**  
Cr3078/month

•••••  
**PURCHASE COST**  
MCR36.9405

## POWER REQUIREMENTS

20

MANOEUVRE  
DRIVE

20

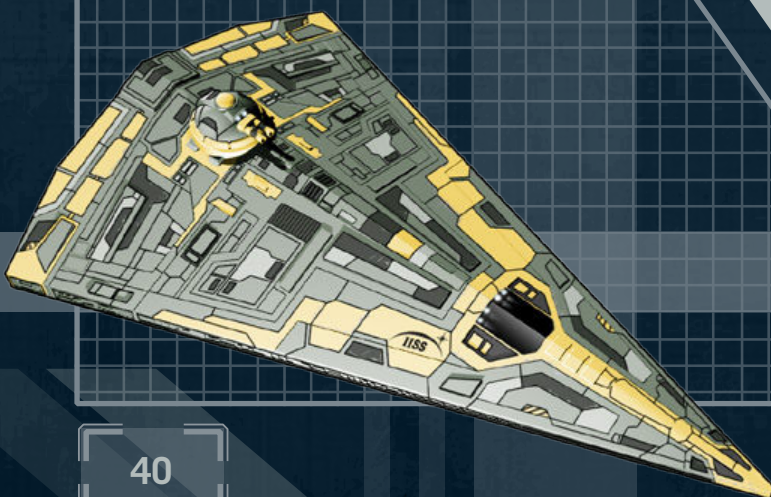
BASIC SHIP  
SYSTEMS

20

JUMP DRIVE

2

SENSORS

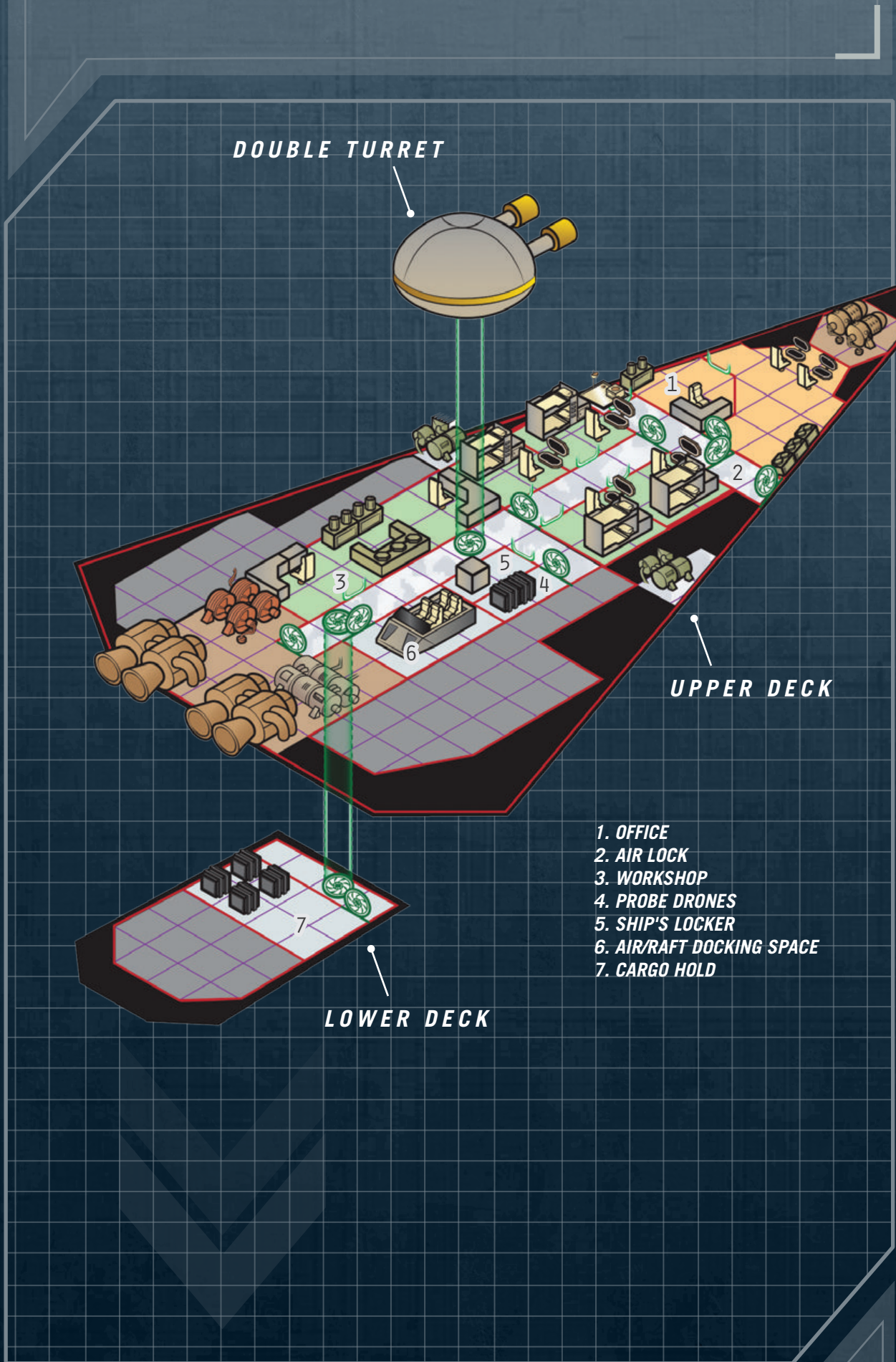


40

HULL POINTS

The scout ship is built for exploration, survey, and courier duties, with many thousands in service throughout Charted Space. Despite the small 100 ton hull, the scout is faster than most merchant ships and can jump further too. While multiple crew positions are technically required, it is standard practice for a scout to be crewed by just one or two highly skilled individuals who understand the requirements needed for self-sufficiency.





**DOUBLE TURRET**

**UPPER DECK**

**LOWER DECK**

- 1. OFFICE
- 2. AIR LOCK
- 3. WORKSHOP
- 4. PROBE DRONES
- 5. SHIP'S LOCKER
- 6. AIR/RAFT DOCKING SPACE
- 7. CARGO HOLD



# SEEKER MINING SHIP

(TYPE-J)

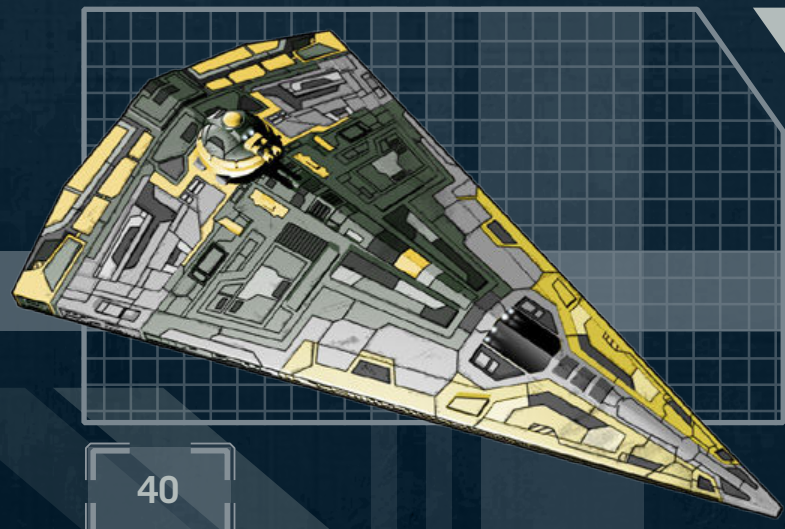
TL12		TONS	COST (MCR)
<b>Hull</b>	100 tons, Streamlined	-	6
<b>Armour</b>	Crystaliron, Armour: 4	5	1.2
<b>M-Drive</b>	Thrust 2	2	4
<b>J-Drive</b>	Jump-2	10	15
<b>Power Plant</b>	Fusion, Power 60	4	4
<b>Fuel Tanks</b>	4 weeks operation, J-2	21	-
<b>Bridge</b>		10	0.5
<b>Computer</b>	Computer 5/bis	-	0.045
<b>Sensors</b>	Military Grade	2	4.1
<b>Weapons</b>	Double Turret	1	0.5
<b>Systems</b>	Fuel Scoop	-	-
	Fuel Processors (20/ tons a day)	1	0.05
	Mining Drones x 5	10	1
<b>Software</b>	Jump Control/2	-	0.2
	Library	-	-
	Manoeuvre/0	-	-
<b>Staterooms</b>	Standard x 2	8	1
<b>Cargo</b>		26	-
<b>TOTAL: MCR 33.8355</b>			

**CREW**  
PILOT, ASTROGATOR,  
ENGINEER

**RUNNING COSTS**  
**MAINTENANCE COST:**  
Cr2820/month  
.....  
**PURCHASE COST:**  
MCR33.8355

**POWER REQUIREMENTS**

20 MANOEUVRE DRIVE	20 BASIC SHIP SYSTEMS
20 JUMP DRIVE	2 SENSORS

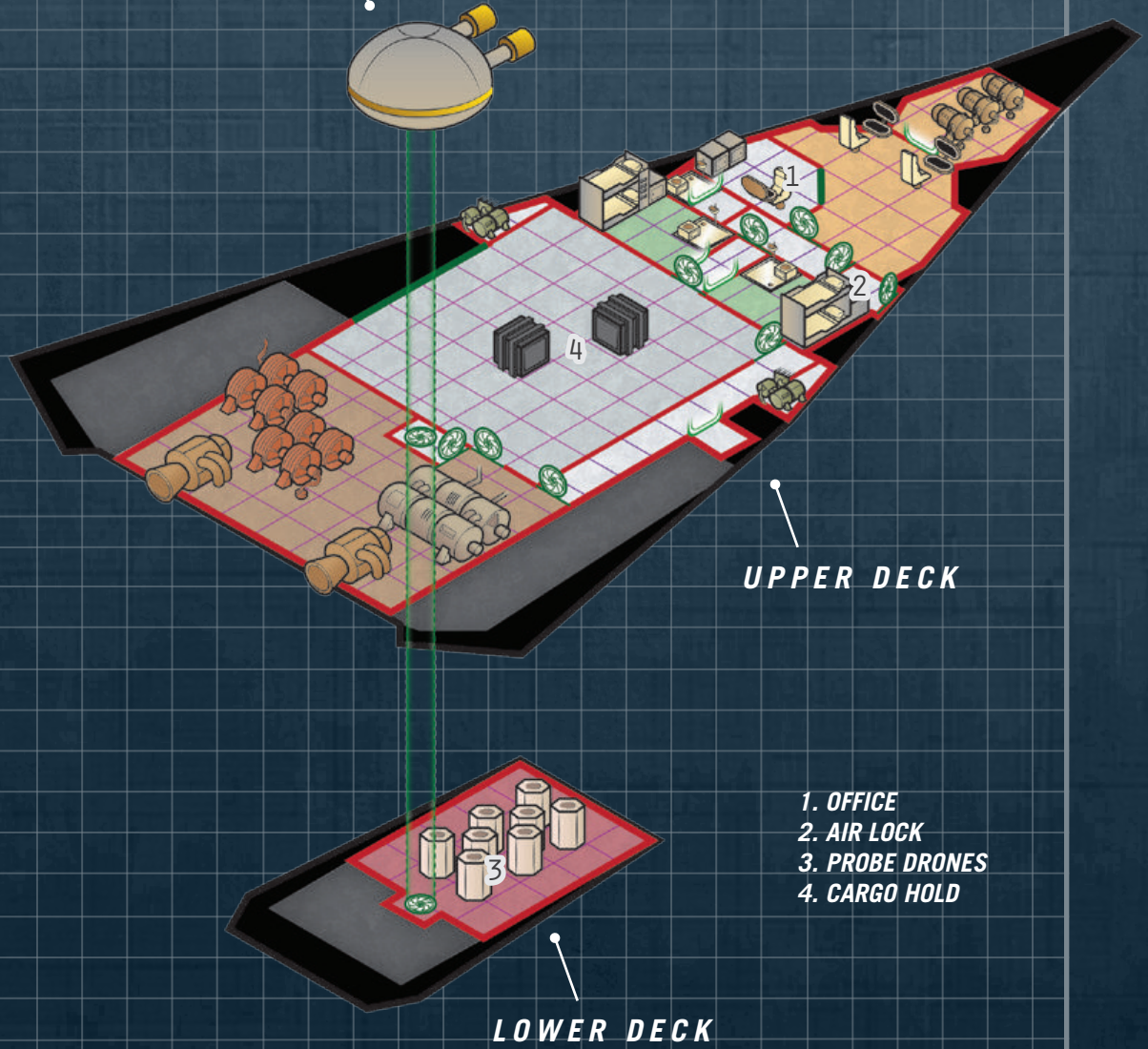


40  
HULL POINTS

A variation on the traditional scout/courier, the seeker is occasionally produced in this configuration by shipyards but it is far more common for it to be created by re-fitting an old scout retired from active service. A seeker has fewer staterooms and a smaller fuel tank, but its larger cargo bay and mining drones allow a single well-skilled prospector to scavenge asteroids and make a living looking for deposits of valuable minerals.



*DOUBLE TURRET*





# SUBSIDISED LINER

(TYPE-M)

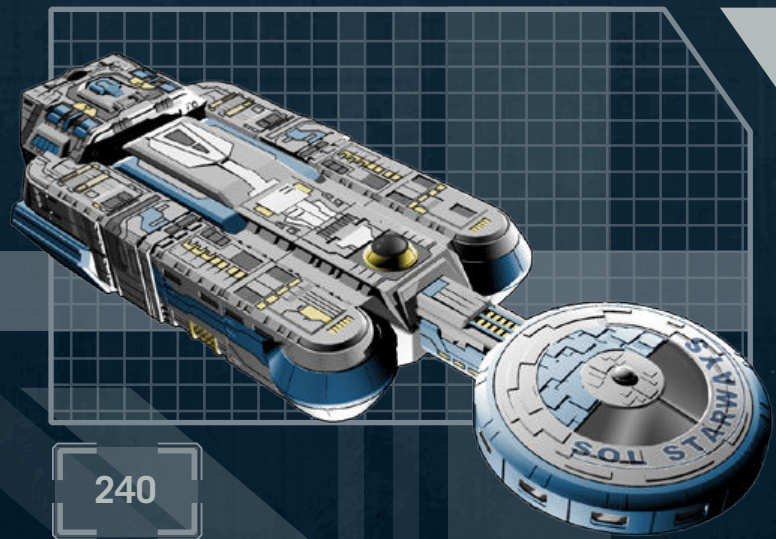
TL12		TONS	COST (MCr)
<b>Hull</b>	600 tons, Standard	-	30
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 1	6	12
<b>J-Drive</b>	Jump-3	50	75
<b>Power Plant</b>	Fusion, Power 360	24	24
<b>Fuel Tanks</b>	4 weeks operation, J-3	183	-
<b>Bridge</b>		20	3
<b>Computer</b>	Computer 10/bis	-	0.24
<b>Sensors</b>	Civilian Grade	1	3
<b>Weapons</b>		-	-
<b>Systems</b>	Docking Space (20 tons)	22	5.5
	Launch	-	2.367
<b>Staterooms</b>	Standard x 30	120	15
	Low Berths x 20	10	1
<b>Software</b>	Jump Control/3	-	0.3
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		45	4.5
<b>Cargo</b>		119	-
<b>TOTAL: MCr 158.3163</b>			

**CREW**  
 PILOT, ASTROGATOR,  
 2 ENGINEERS, MEDIC,  
 STEWARD

**RUNNING COSTS**  
**MAINTENANCE COST:**  
 Cr13193/month  
 . . . . .  
**PURCHASE COST:**  
 MCr158.3163

**POWER REQUIREMENTS**

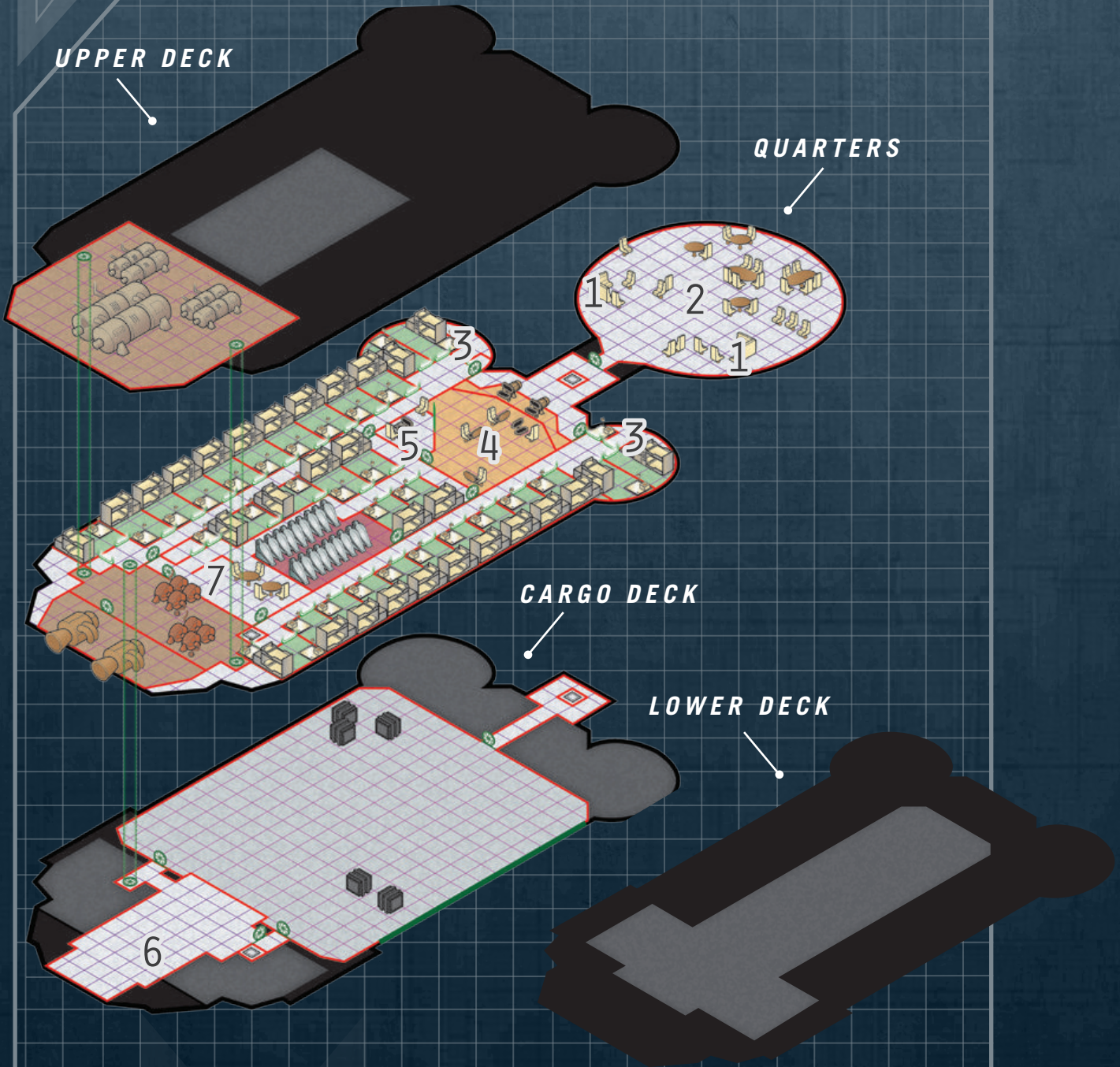
60 MANOEVRE DRIVE	120 BASIC SHIP SYSTEMS
180 JUMP DRIVE	1 SENSORS



240  
 HULL POINTS

The subsidised liner is built for carrying passengers and cargo on long haul routes, in a modicum of comfort; while a steward is present, passengers should expect cheap interstellar travel rather than luxury. Overall, the ship is capable of carrying 24 passengers in addition to its crew, with a further 20 in low berths. With a 3 parsec jump capability, a lot of destinations are possible. Though the hull of the ship itself is unstreamlined, a launch allows passengers to be ferried to the surface of a world, or act as a life boat in emergencies.





- 1. BAR/GALLEY
- 2. PASSENGERS LOUNGE
- 3. SPA/STEAM ROOM
- 4. BRIDGE
- 5. OFFICE
- 6. LAUNCH DOCKING SPACE
- 7. CREW DOCKING AREA



# SUBSIDISED MERCHANT

(TYPE-R)

TL12		TONS	COST (MCr)
<b>Hull</b>	400 tons, Streamlined	-	24
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 1	4	8
<b>J-Drive</b>	Jump-1	15	22.5
<b>Power Plant</b>	Fusion, Power 135	9	9
<b>Fuel Tanks</b>	4 weeks operation, J-1,	41	-
<b>Bridge</b>		20	2
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Civilian Grade	1	3
<b>Weapons</b>		-	-
<b>Systems</b>	Fuel Scoop	-	-
	Fuel Processors (20/tons a day)	1	0.05
	Docking Space (20 tons)	22	5.5
	Launch	-	2.367
<b>Staterooms</b>	Standard x 19	76	9.5
	Low Berths x 9	4.5	0.45
<b>Software</b>	Jump Control/1	-	0.1
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		5.5	0.55
<b>Cargo</b>		201	-
<b>TOTAL: MCr 87.047</b>			

## CREW

PILOT, ASTROGATOR,  
ENGINEER, MEDIC,  
STEWARD

## RUNNING COSTS

**MAINTENANCE COST:**  
Cr7254/month

•••••  
**PURCHASE COST:**  
MCr87.047

## POWER REQUIREMENTS

40

MANOEUVRE  
DRIVE

80

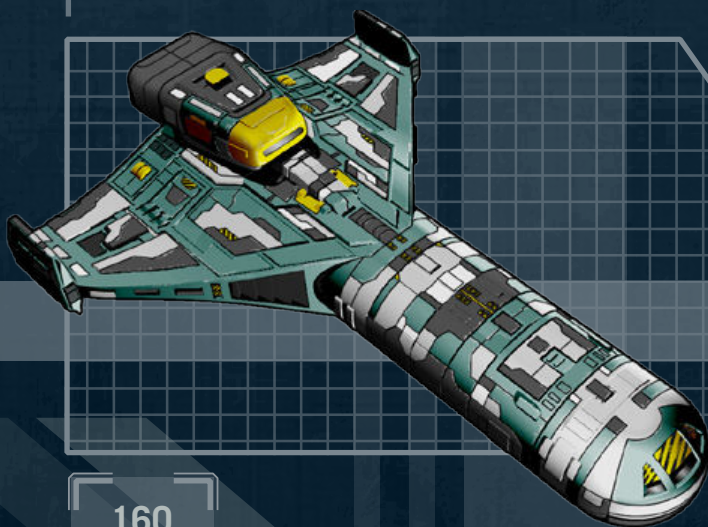
BASIC SHIP  
SYSTEMS

40

JUMP DRIVE

1

SENSORS

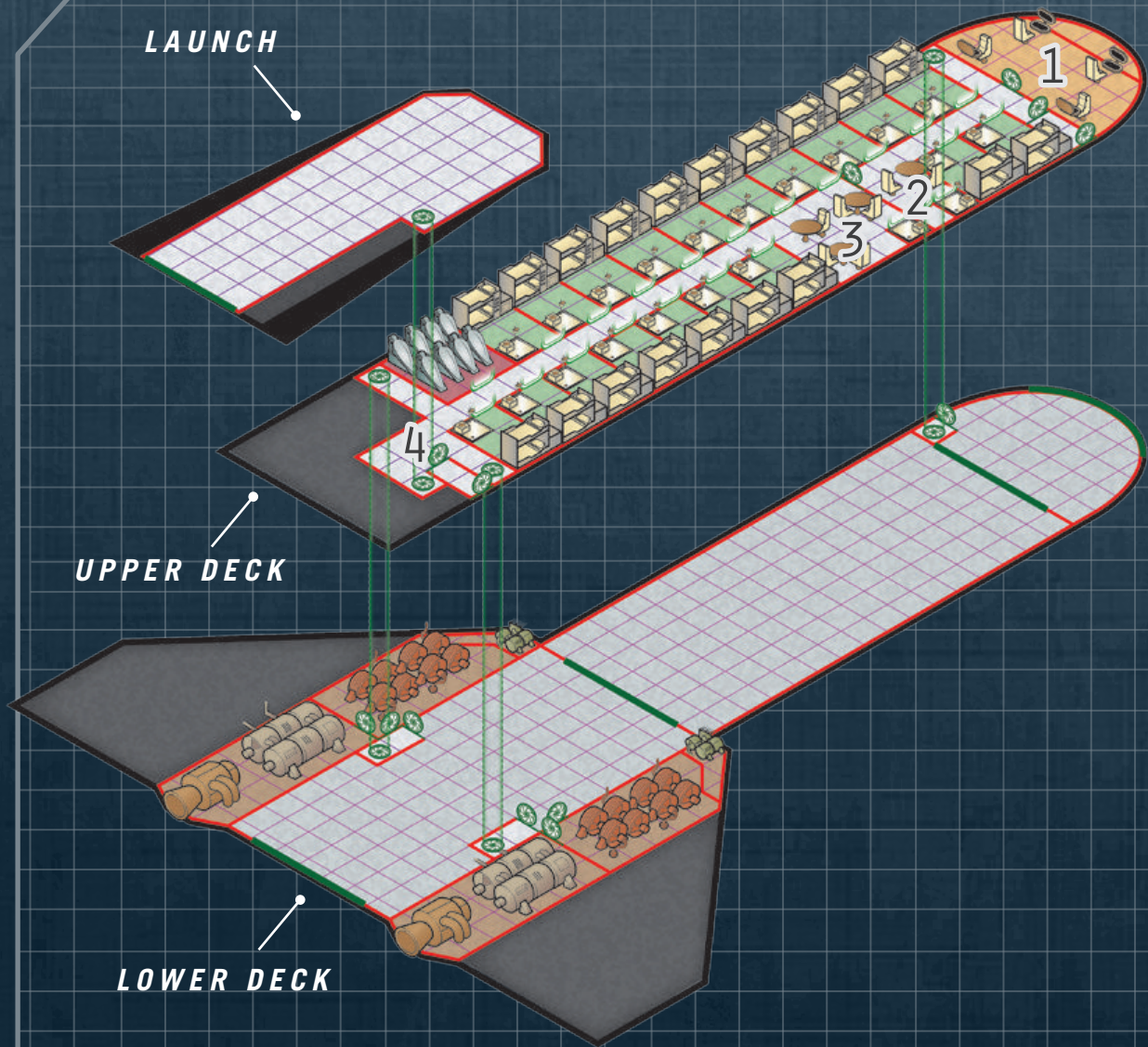


160

HULL POINTS

The subsidised merchant (also called the fat trader) is a trading vessel intended to meet the commercial needs of clusters of worlds. It is twice the size of a free trader but carries cargo far more efficiently with a cavernous cargo bay more than twice the size of that within its little cousin. In fact, if its cargo bay doors were larger, the subsidised merchant could theoretically swallow a free trader whole. This ship normally requires a crew of five, although the pilot also operates the launch, a steward is only necessary if carrying commercial passengers, and gunners may be added to the list if weapons are installed.





*LAUNCH*

*UPPER DECK*

*LOWER DECK*

- 1. BRIDGE
- 2. CREW COMMON AREA
- 3. PASSENGER COMMON AREA
- 4. BOARDING AREA



# YACHT

(TYPE-Y)

TL12		TONS	COST (MCr)
<b>Hull</b>	200 tons, Standard	-	10
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 1	2	4
<b>J-Drive</b>	Jump-1	10	15
<b>Power Plant</b>	Fusion, Power 90	6	6
<b>Fuel Tanks</b>	8 weeks operation, J-1	22	-
<b>Bridge</b>		10	1
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Civilian Grade	1	3
<b>Weapons</b>		-	-
<b>Systems</b>	Docking Space (4 tons)	5	1.25
	Air-Raft	-	0.25
	Docking Space (30 tons)	33	8.25
	Ship's Boat	-	7.272
	ATV (on Ship's Boat)	-	0.155
<b>Staterooms</b>	Standard x 12	48	6
	Luxury x 1	10	1.5
<b>Software</b>	Jump Control/1	-	0.1
	Library	-	-
	Manoeuvre/0	-	-
<b>Common Areas</b>		32	3.2
<b>Cargo</b>		21	-
<b>TOTAL: MCr 67.007</b>			

## CREW

PILOT, ASTROGATOR,  
ENGINEER, MEDIC,  
STEWARD

## RUNNING COSTS

**MAINTENANCE COST:**  
Cr 5584/month

•••••  
**PURCHASE COST:**  
MCr67.007

## POWER REQUIREMENTS

20

MANOEVRE  
DRIVE

40

BASIC SHIP  
SYSTEMS

20

JUMP DRIVE

1

SENSORS



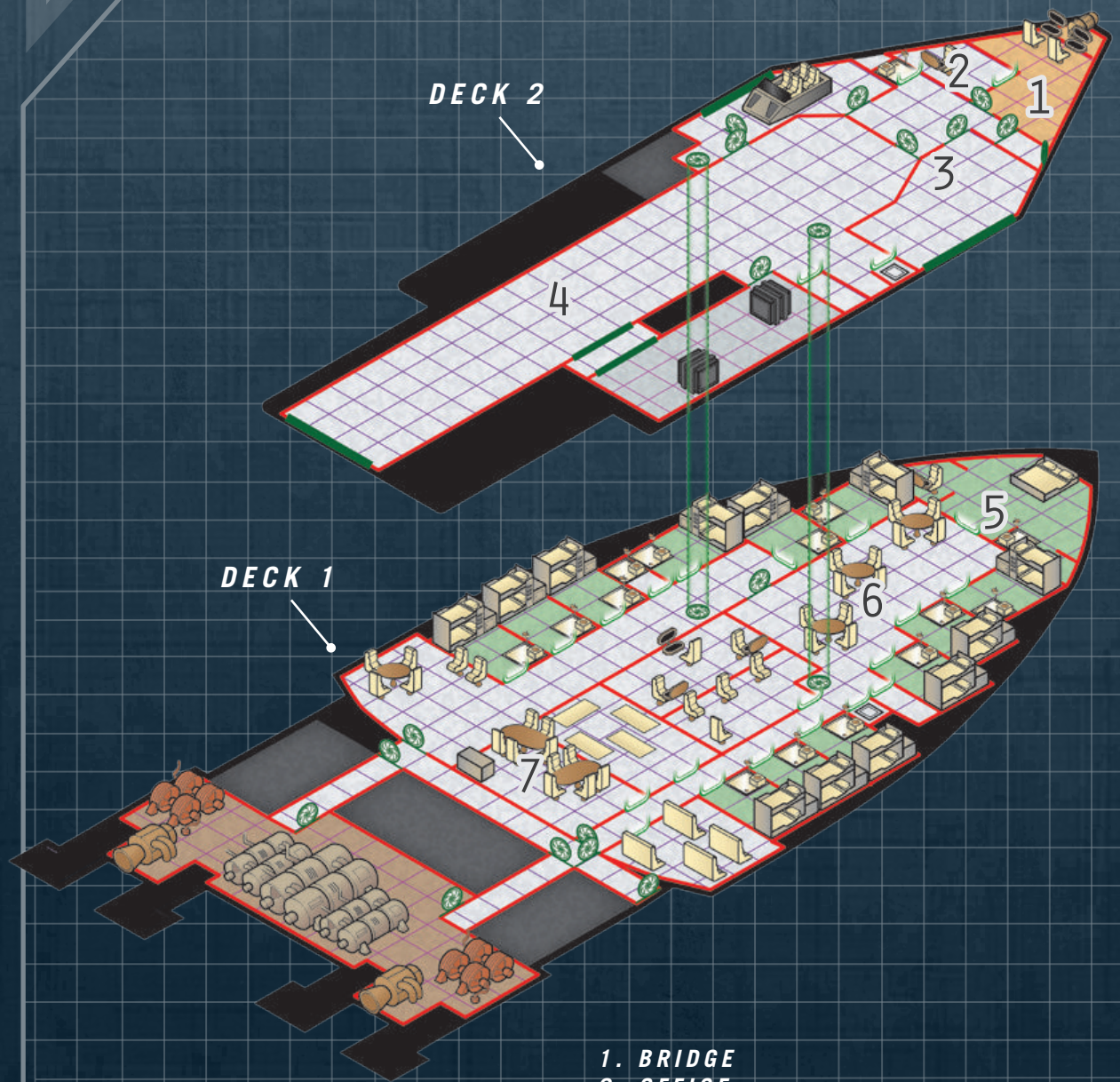
80

HULL POINTS

The yacht is a noble's plaything, used to entertain friends and undertake political or commercial missions. The staterooms are all well-appointed but even they fail to make the grade in comparison to the luxury stateroom intended for the yacht's owner.

The yacht carries an air/raft and a ship's boat within docking compartments; an ATV is also carried, with the ship's boat being used to ferry it from orbit to surface and back again.





- 1. BRIDGE
- 2. OFFICE
- 3. ATV BAY
- 4. SHIP'S BOAT DOCKING AREA
- 5. LUXURY ROOM
- 6. PASSENGER COMMON AREA
- 7. CREW COMMON AREA



# LAUNCH

TL12		TONS	COST (MCR)
<b>Hull</b>	20 tons, Streamlined	-	1.2
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 1	0.2	0.4
<b>Power Plant</b>	Fusion (TL8), Power 10	1	.5
<b>Fuel Tanks</b>	4 weeks operation	1	-
<b>Bridge</b>		3	0.5
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Basic	-	-
<b>Weapons</b>		-	-
<b>Systems</b>		-	-
<b>Software</b>	Library Manoeuvre/0	-	-
<b>Cargo</b>		14.8	-

**TOTAL: MCR 2.367**

**CREW**  
PILOT

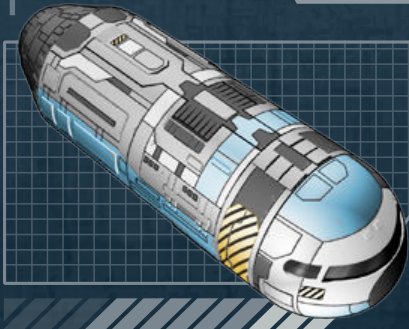
**RUNNING COSTS**  
**MAINTENANCE COST:**  
 Cr197/month  
 .....  
**PURCHASE COST:**  
 MCR2.367

**POWER REQUIREMENTS**

2

4

MANOEUVRE DRIVE      BASIC SHIP SYSTEMS



8

HULL POINTS

4

HULL POINTS



## CREW

PILOT

## RUNNING COSTS

**MAINTENANCE COST:**  
 Cr758/month  
 .....  
**PURCHASE COST:**  
 MCR9.09

## POWER REQUIREMENTS

6

2

2

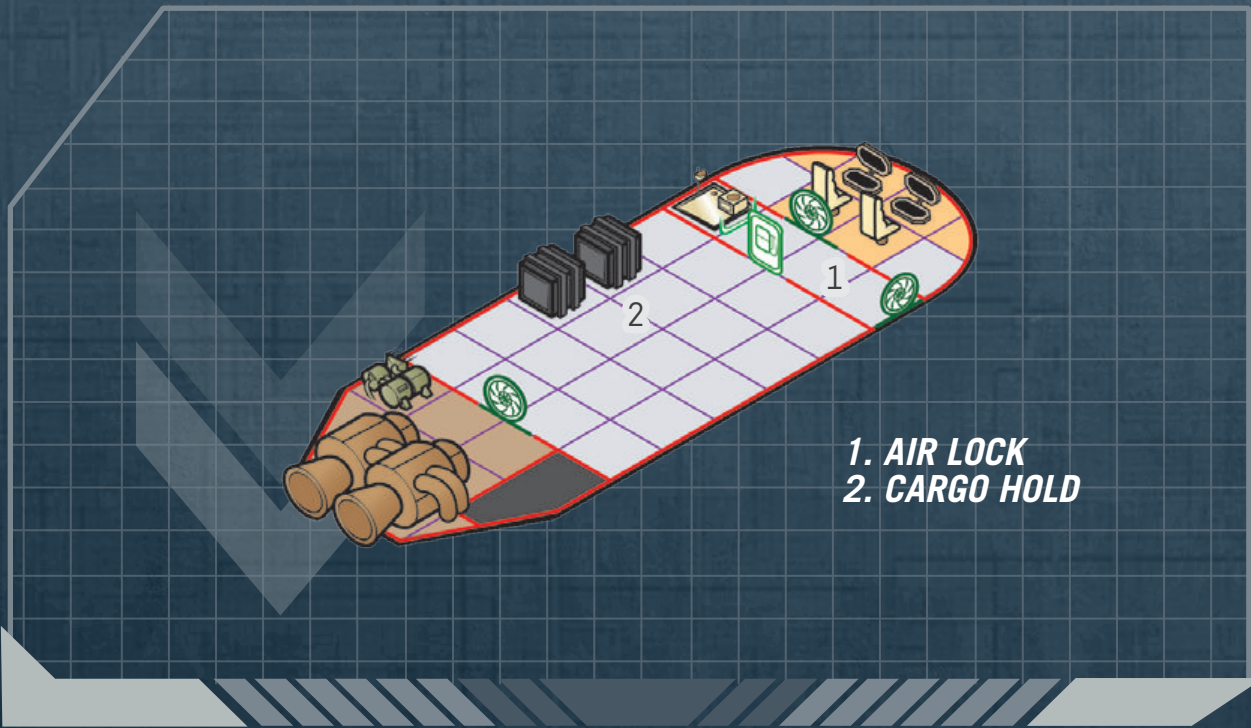
MANOEUVRE DRIVE      BASIC SHIP SYSTEMS      SENSORS

# LIGHT FIGHTER

TL12		TONS	COST (MCR)
<b>Hull</b>	10 tons, Streamlined	-	0.6
<b>Armour</b>	Crystaliron, Armour: 2	0.25	0.06
<b>M-Drive</b>	Thrust 6	0.6	1.2
<b>Power Plant</b>	Fusion, Power 15	1	1
<b>Fuel Tanks</b>	4 weeks operation	1	-
<b>Bridge</b>	Cockpit	1.5	0.01
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Military Grade	2	4.1
<b>Weapons</b>	Fixed Mount (Pulse Laser)	-	1.1
<b>Software</b>	Fire Control/1 Library Manoeuvre/0	-	2
<b>Cargo</b>		3.65	-

**TOTAL: MCR 9.09**

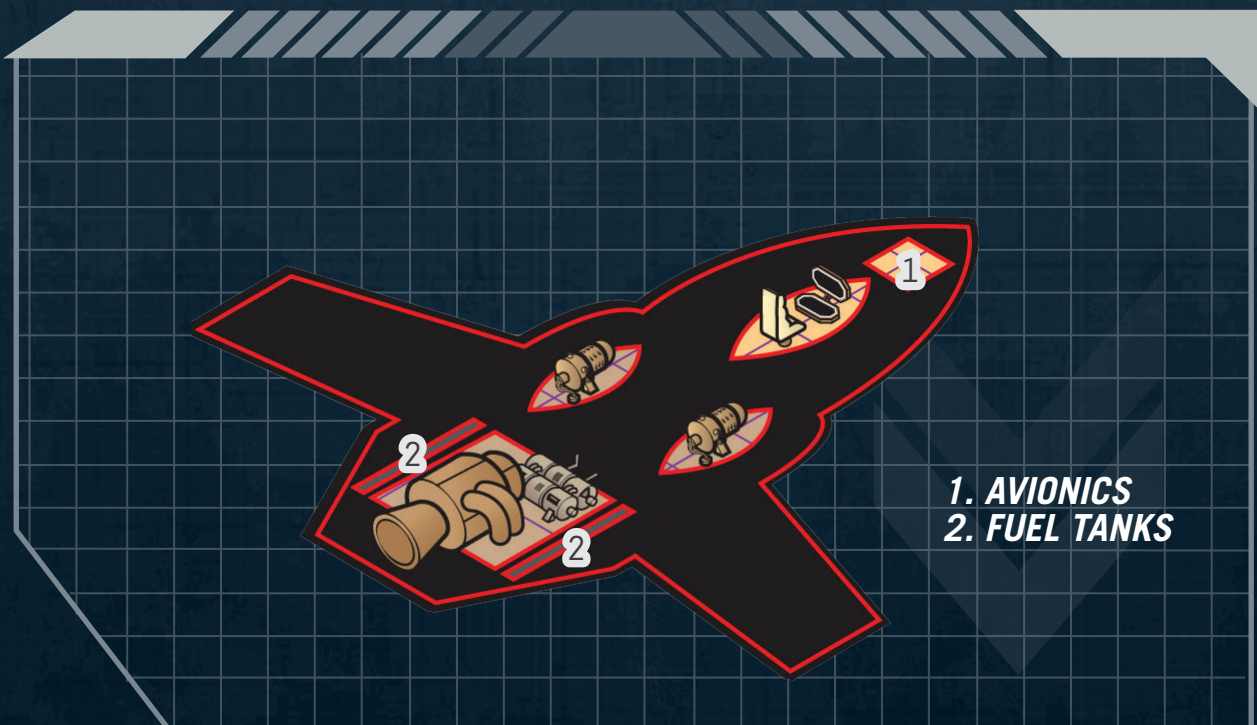




- 1. AIR LOCK**
- 2. CARGO HOLD**

Also called a life boat, due to one of its expected roles, this craft uses a 20-ton hull and can easily be flown by a single skilled individual. A launch can be configured to engage in a wide variety of roles, but ambitious schemes will find themselves limited by the small hull and weak power plant. However, for the price, the launch provides a means to very cheap space travel.

Consisting of little more than a power plant and pulse laser with a pilot strapped to the top, the light fighter is a small, fast and highly manoeuvrable craft designed to make high-speed runs on enemy ships and destroy other small craft. Designed to adhere to a strict budget, the light fighter allows even the poorest worlds a chance at self-defence.



- 1. AVIONICS**
- 2. FUEL TANKS**



# MODULAR CUTTER

TL12		TONS	COST (MCR)
Hull	50 tons, Streamlined	-	3
Armour	armour 0	-	-
M-Drive	Thrust 4	2	4
Power Plant	Fusion (TL8), Power 30	3	1.5
Fuel Tanks	4 weeks operation	1	-
Bridge		3	0.5
Computer	Computer 5	-	0.03
Sensors	Basic	-	-
Weapons	Fixed Mount	-	0.1
Systems	Modular Hull	30	1.8
	Cabin Space x 4	6	0.3
	Airlock	2	0.2
Software	Library	-	-
	Manoeuvre/0	-	-
Cargo		3	-

**TOTAL: MCR 10.287**

**CREW**  
PILOT

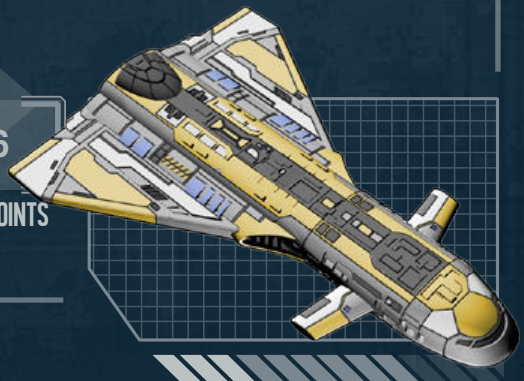
**RUNNING COSTS**  
**MAINTENANCE COST:**  
 Cr857/month  
 .....  
**PURCHASE COST:**  
 MCR10.287

**POWER REQUIREMENTS**  
 20 **MANOEVRE DRIVE**  
 10 **BASIC SHIP SYSTEMS**



20  
HULL POINTS

16  
HULL POINTS



**CREW**

PILOT

**RUNNING COSTS**  
**MAINTENANCE COST:**  
 Cr726/month  
 .....  
**PURCHASE COST:**  
 MCR8.712

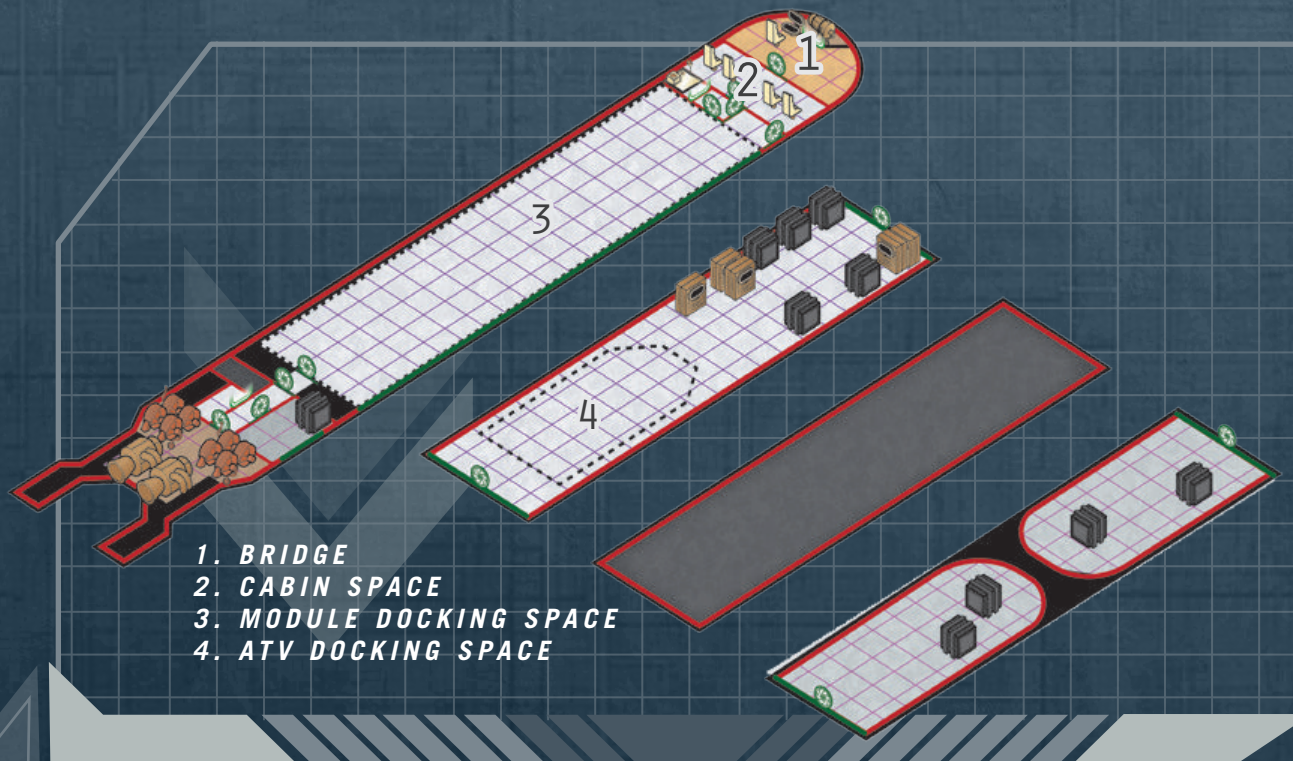
**POWER REQUIREMENTS**  
 20 **MANOEVRE DRIVE**  
 8 **BASIC SHIP SYSTEMS**

# PINNACE

TL12		TONS	COST (MCR)
Hull	40 tons, Streamlined	-	2.4
Armour	Armour: 0	-	-
M-Drive	Thrust 5	2	4
Power Plant	Fusion, Power 30	2	2
Fuel Tanks	4 weeks operation	1	-
Bridge	Bridge	3	0.5
Computer	Computer 5	-	0.03
Sensors	Basic	-	-
Weapons	Fixed Mount	-	0.1
Systems	Cabin Space x 6	9	0.45
	Airlock	2	0.2
Software	Library	-	-
	Manoeuvre/0	-	-
Cargo		21	-

**TOTAL: MCR 8.712**



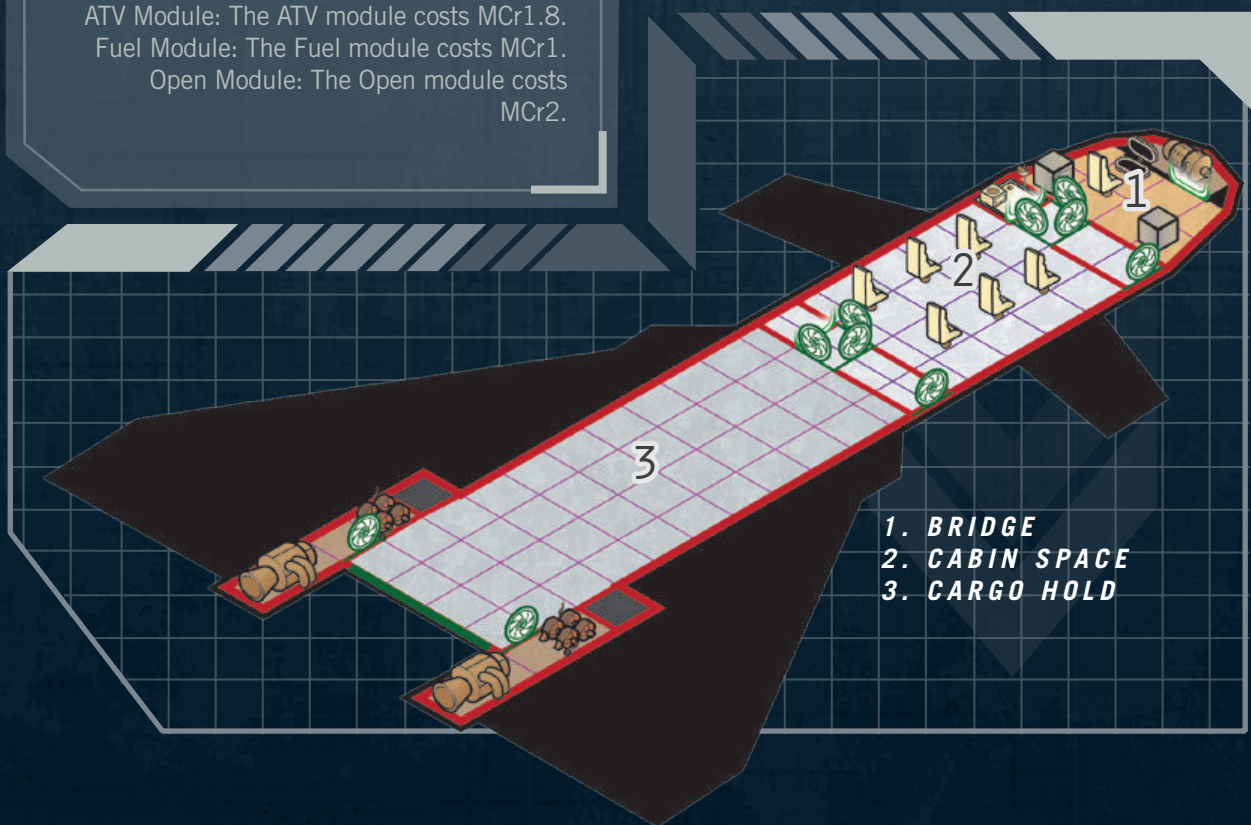


1. BRIDGE
2. CABIN SPACE
3. MODULE DOCKING SPACE
4. ATV DOCKING SPACE

The modular cutter is notable for having 30 tons dedicated to a detachable module; this allows the cutter to quickly and efficiently change roles during a voyage without needing extensive refits at a starport. While there are a great many customised modules available for the cutter, the three most common and routinely available for the cutter are listed below and detailed on the opposite page.

- ATV Module: The ATV module costs MCr1.8.
- Fuel Module: The Fuel module costs MCr1.
- Open Module: The Open module costs MCr2.

The pinnacle is a popular choice as an auxiliary vessel for adventuring or exploratory ships, as it has the speed, range and cargo capacity to support extended missions. It combines a generous cargo hold with a speed that leaves most star ships trailing far behind, and can be configured for light combat operations with the addition of weaponry to its fixed mount.



1. BRIDGE
2. CABIN SPACE
3. CARGO HOLD



# SHIP'S BOAT

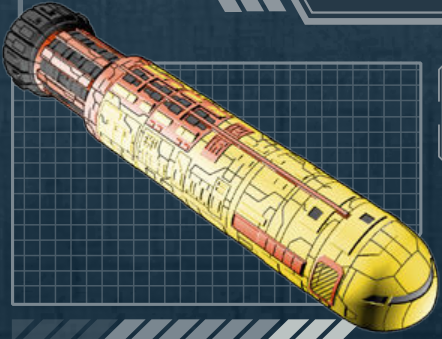
TL12		TONS	COST (MCR)
<b>Hull</b>	30 tons, Streamlined	-	1.8
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 5	1.5	3
<b>Power Plant</b>	Fusion, Power 30	2	2
<b>Fuel Tanks</b>	4 weeks operation	1	-
<b>Bridge</b>	Bridge	3	0.5
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Basic	-	-
<b>Weapons</b>	Fixed Mount	-	0.1
<b>Systems</b>	Cabin Space x 6	9	0.45
	Airlock	2	0.2
<b>Software</b>	Library	-	-
	Manoeuvre/0	-	-
<b>Cargo</b>		11.5	-

**TOTAL: MCR 7.2720**

**CREW**  
PILOT

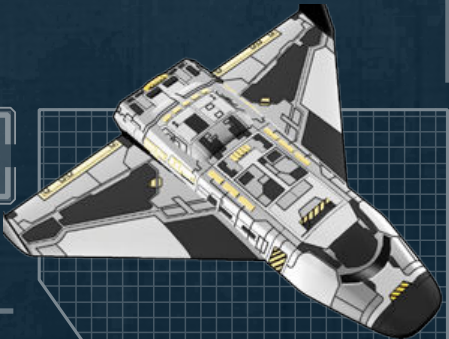
**RUNNING COSTS**  
**MAINTENANCE COST:**  
 Cr606/month  
 .....  
**PURCHASE COST:**  
 MCR7.2720

**POWER REQUIREMENTS**  
15 **MANOEUVRE DRIVE**  
6 **BASIC SHIP SYSTEMS**



12  
HULL POINTS

38  
HULL POINTS



## CREW

PILOT

**RUNNING COSTS**  
**MAINTENANCE COST:**  
 Cr1262/month  
 .....  
**PURCHASE COST:**  
 MCR15.147

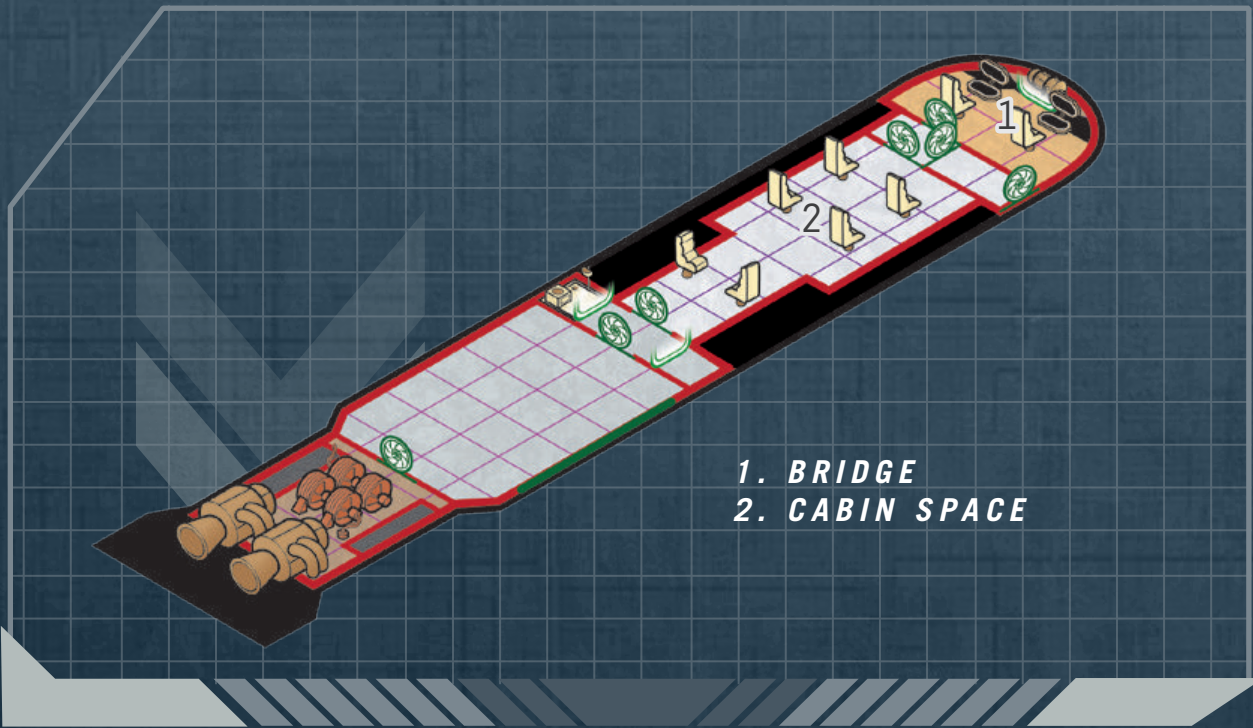
**POWER REQUIREMENTS**  
28.5 **MANOEUVRE DRIVE**  
19 **BASIC SHIP SYSTEMS**

# SHUTTLE

TL12		TONS	COST (MCR)
<b>Hull</b>	95 tons, Streamlined	-	5.7
<b>Armour</b>	Armour: 0	-	-
<b>M-Drive</b>	Thrust 3	2.85	5.7
<b>Power Plant</b>	Fusion, Power 60	4	4
<b>Fuel Tanks</b>	4 weeks operation	1	-
<b>Bridge</b>	Bridge	6	0.5
<b>Computer</b>	Computer 5	-	0.03
<b>Sensors</b>	Basic	-	-
<b>Weapons</b>	Fixed Mount	-	0.1
<b>Systems</b>	Cabin Space x 8	12	0.6
	Airlock	2	0.2
<b>Software</b>	Library	-	-
	Manoeuvre/0	-	-
<b>Cargo</b>		67.15	-

**TOTAL: MCR 15.147**

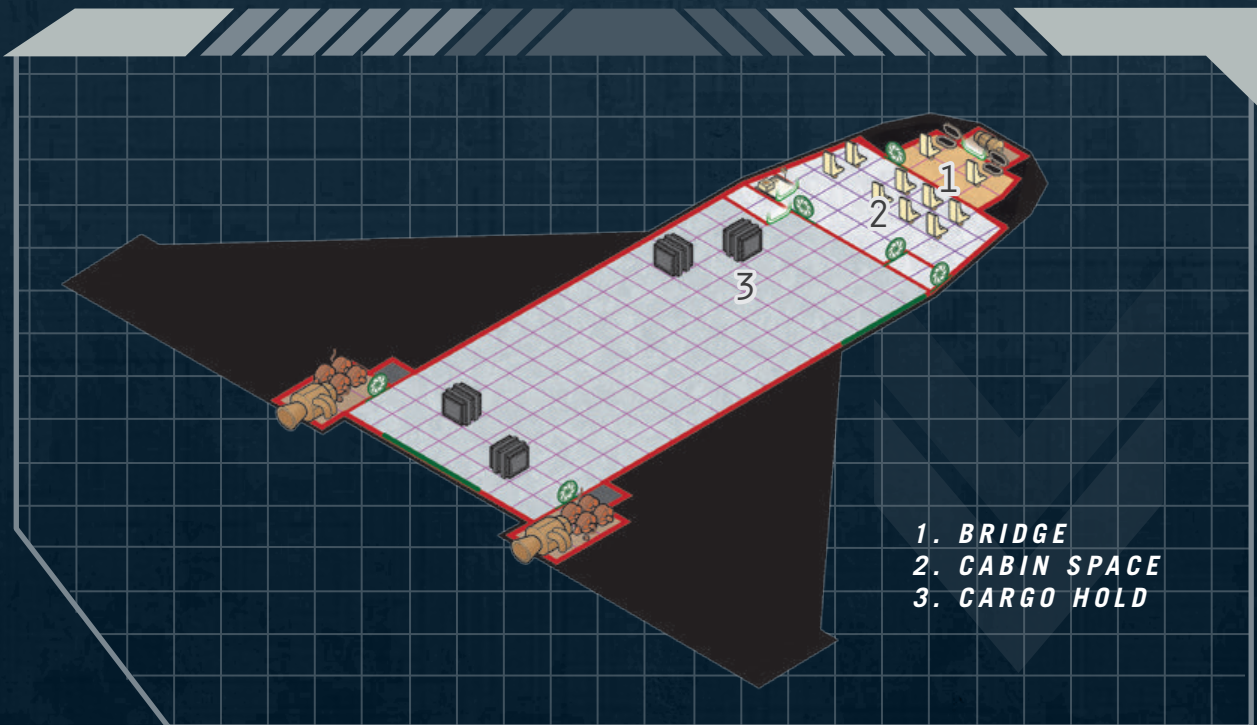




**1. BRIDGE**  
**2. CABIN SPACE**

The ship's boat is both fast and versatile, making it a popular choice for auxiliary craft. While most commonly seen hauling small cargo and passenger loads between ships and worlds, in smaller militaries the ship's boat is also used as a boarding craft by marine assault teams.

One of the most common craft seen in space, the shuttle is present throughout the galaxy and becomes a standard vessel for orbital operations as soon as a civilisation makes its first firm steps into space. It is designed to carry passengers and cargo from orbit to surface and back again, as well as act as an interplanetary transport.



**1. BRIDGE**  
**2. CABIN SPACE**  
**3. CARGO HOLD**



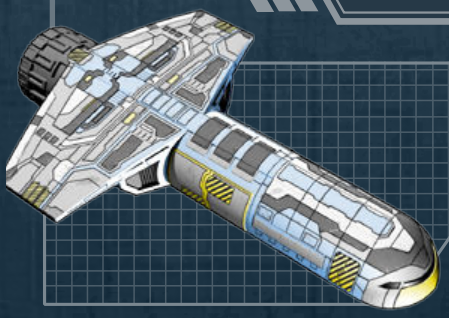
# SLOW BOAT

TL12		TONS	COST (MCR)
Hull	30 tons, Streamlined	-	1.8
Armour	Armour: 0	-	-
M-Drive	Thrust 3	0.9	1.8
Power Plant	Fusion, Power 15	1	1
Fuel Tanks	4 weeks operation	1	-
Bridge	Bridge	3	0.5
Computer	Computer 5	-	0.03
Sensors	Basic	-	-
Weapons	Fixed Mount	-	0.1
Systems	Cabin Space x 2	3	0.15
Software	Library. Manoeuvre/0	-	-
Cargo		21.1	-
<b>TOTAL: MCR 4.842</b>			

**CREW**  
PILOT

**RUNNING COSTS**  
MAINTENANCE COST:  
Cr404/month  
.....  
PURCHASE COST:  
MCR4.842

**POWER REQUIREMENTS**  
9  
MANOEVRE DRIVE  
6  
BASIC SHIP SYSTEMS



12  
HULL POINTS



16  
HULL POINTS

**CREW**  
PILOT

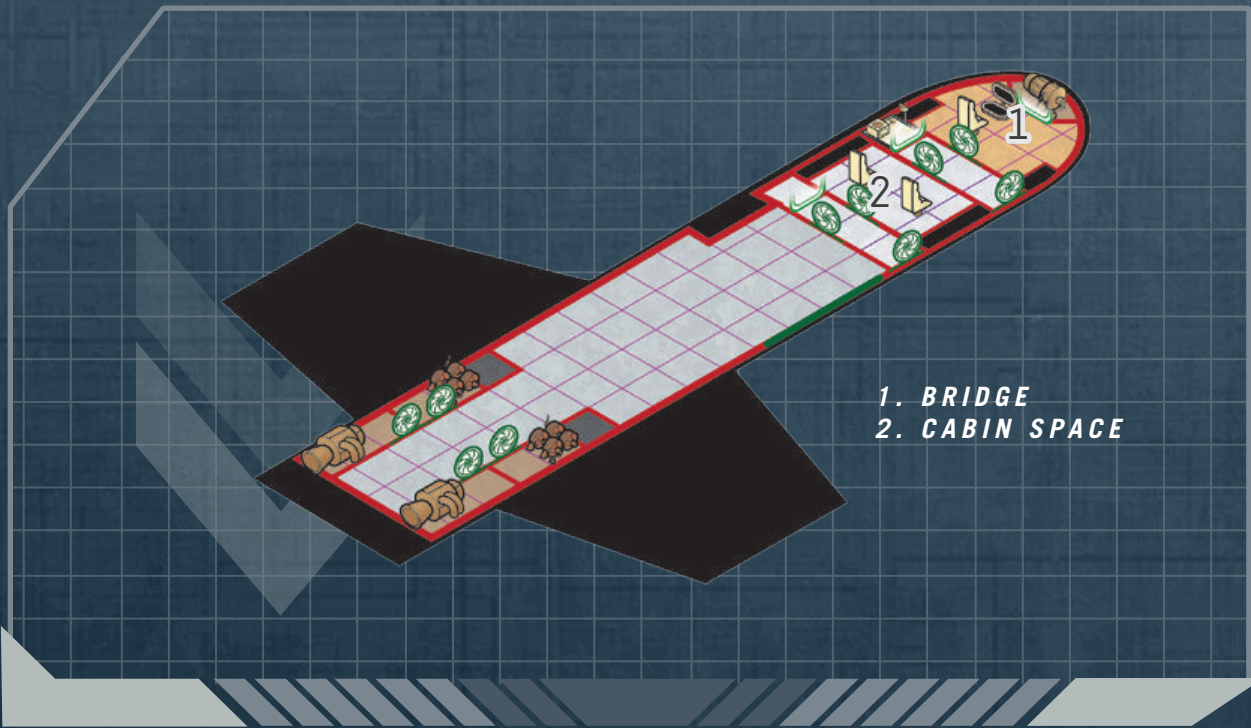
**RUNNING COSTS**  
MAINTENANCE COST:  
Cr482/month  
.....  
PURCHASE COST:  
MCR5.787

**POWER REQUIREMENTS**  
12  
MANOEVRE DRIVE  
8  
BASIC SHIP SYSTEMS

# SLOW PINNACE

TL12		TONS	COST (MCR)
Hull	40 tons, Streamlined	-	2.4
Armour	Armour: 0	-	-
M-Drive	Thrust 3	1.2	2.4
Power Plant	Fusion, Power 20 (TL8)	2	1
Fuel Tanks	4 weeks operation	1	-
Bridge	Bridge	3	0.5
Computer	Computer 5	-	0.03
Sensors	Basic	-	-
Weapons	Fixed Mount	-	0.1
Software	Library Manoeuvre/0	-	-
Cargo		32.8	-
<b>TOTAL: MCR 5.787</b>			

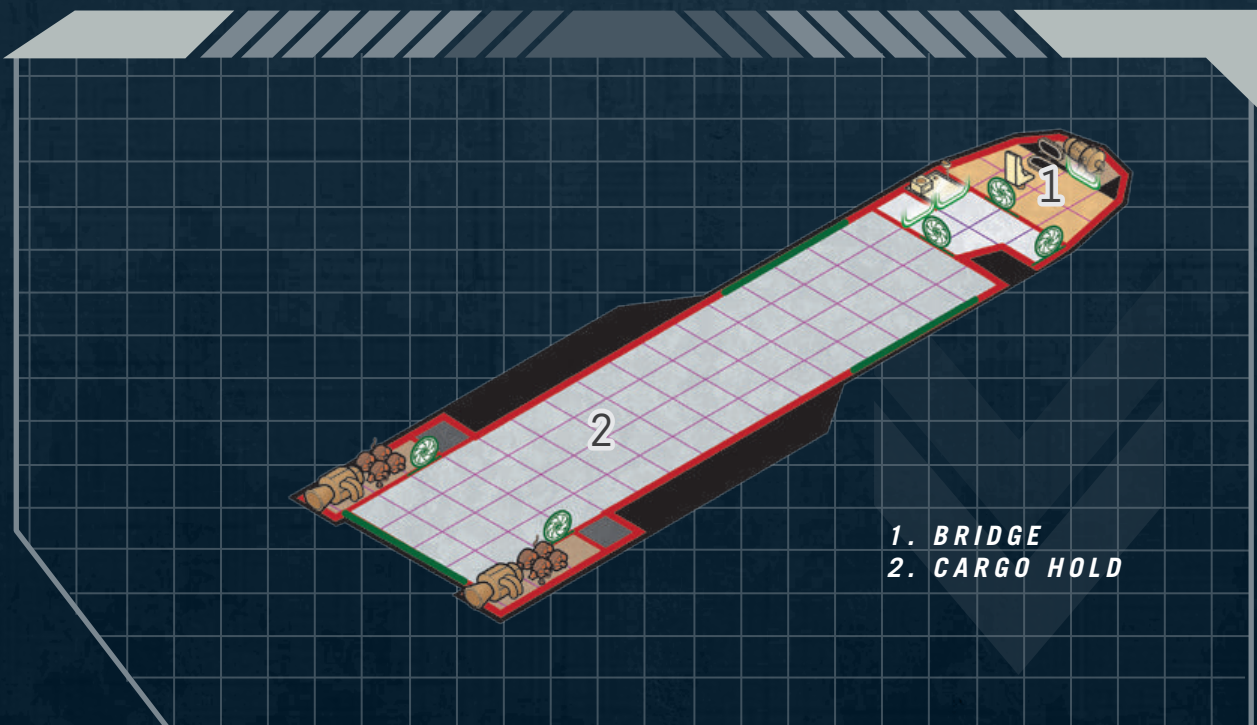




- 1. BRIDGE
- 2. CABIN SPACE

The slow boat appears either as an early design of the ship's boat, before power plants and manoeuvre drives become more efficient, or as an intentional throttling back of the ship's boats performance. Either way, the slow boat is comparable to the ship's boat but it trades speed for increased cargo space.

Like the slow boat, the slow pinnacle trades speed and raw performance for increased cargo space, though this craft is based on the traditional pinnacle. As a larger hull, it provides even more cargo carrying capacity than a slow boat, and many are customised to become troop or vehicle transports, or to serve as fuel skimmers for larger ships.



- 1. BRIDGE
- 2. CARGO HOLD



# PSIONICS

In *Traveller*, a few humans (and aliens) have developed potent psionic abilities such as telepathy, telekinesis and even teleportation. Learning to properly control psionics is never easy and their use can not always be relied upon, but they are guaranteed to provide their practitioners with a dangerous edge simply not possible for normal humans.



## Third Imperium: Psionics and the Law

In the Third Imperium setting, learning to harness psionics is a difficult process, made harder by the Imperial ban on psionics. The Psionics Institutes that study mental powers have gone underground, following a disastrous attempt to guide human development centuries ago. In other civilisations, such as the Zhodani Consulate, psionics are an accepted part of the human condition.



## PSIONIC STRENGTH

Psionics are powered by the Psionic Strength (PSI) characteristic. This characteristic cannot be rolled during Traveller creation without the referee's permission, and even then it is quite rare. To determine a Traveller's PSI, roll 2D and subtract the number of terms served by the Traveller in all careers thus far (PSI diminishes over time unless actively used). For example, a 38 year old Traveller (five terms served) would roll 2D-5 to determine his PSI. A Traveller with a PSI of 0 has no potential for psionic powers.

Using a psionic talent costs a number of PSI points, temporarily reducing the Traveller's total. As the characteristic DM for all psionic skill checks is determined by the Travellers' current PSI total, it gets harder and harder to use powers as the Traveller's PSI declines.

## Recovering PSI

Expended PSI points are recovered at the rate of one point per hour, beginning three hours after the Traveller last used a psionic talent.

## INSTITUTE TESTING

A Traveller who wishes to develop psionic abilities requires training. In settings where psionics are uncommon or illegal, the Traveller must find a teacher, normally an underground Psionics Institute. Finding such an instructor can be an adventure in itself. Most teachers will charge at least Cr5000 to test the Traveller's abilities. Testing takes two weeks.

The first step is testing a Traveller's PSI, which is determined as described before (2D minus the number of terms served). If the Traveller still has any PSI remaining, he can be trained.

Training requires four months of work, and costs Cr100000. As part of training, the Traveller may attempt to learn any of the common psionic talents on the Psionic Training table by making a PSI check. He may attempt the talents in any order, but suffers DM-1 per check attempted. If a Traveller learns a power, he gains that power at skill level 0.

## Telepathic Potential

Telepaths are by far the most common among those with psionic potential. If a Traveller chooses Telepathy as their first talent, it will be gained automatically with no need to roll on the table.

## Psionic Training

Talent	Learning DM
Telepathy	+4
Clairvoyance	+3
Telekinesis	+2
Awareness	+1
Teleportation	+0
Per previous talent acquisition check	-1

*For example, Luka has just determined that she has a PSI of 9. She now rolls to determine powers. She can select powers in any order, so she begins with telekinesis. She roll 2D+1 (her PSI DM) +2 (the Telekinesis learning DM), but unfortunately, the dice roll is a 3 for a total of 6 – less than the number she needs, and so she does not develop telekinesis.*



Next, she tries telepathy. She rolls 2D+1 (her PSI DM) +4 (the Telepathy learning DM) and -1 (one previous talent acquisition check), and gets a total of 10. Luka gains Telepathy 0.

## PSIONIC TALENTS

There are several psionic talents, each of which is controlled by a different skill. Within each talent are several powers, all of which may be used by a Traveller trained in the talent. The most common talents are:

- Telepathy:** Reading minds & communicating
- Clairvoyance:** Perceiving at a distance
- Telekinesis:** Mind over matter
- Awareness:** Control over one's own mind and body
- Teleportation:** Moving from one point to another instantly



### Special Powers

The psionic powers described here are not the only manifestations of psionic ability. There are other, rarer abilities such as precognition, electrokinesis, telepathic control or astral projection that may also be encountered, but these abilities are usually plot devices used by the referee. Special powers are covered in *Psion*.



## USING PSIONIC TALENTS

To activate a talent, the Traveller must make a skill check using the appropriate skill (Telepathy, Telekinesis, etc), adding his PSI DM, along with any other appropriate DMs. He must also spend the listed number of PSI points if he succeeds, or one point if he fails. If this cost brings him below zero PSI, then any excess points are applied as damage. A Traveller with no PSI points cannot attempt to activate a power.

Most abilities can be used at a distance and have a Reach characteristic. This is the distance (using the Range Bands on page 31) at which the ability can normally be used. However, a powerful psion can increase the range at which he uses abilities with greater mental effort.

The Reach of an ability can be increased by one Range Band if twice the Psi Cost is paid, and increased by two Range Bands if the Psi Cost is multiplied by four.

## Psionic Range

Range Band	Distance to Target
Personal	Less than one metre
Close	1 to 5 metres
Short	5 to 10 metres
Medium	11 to 50 metres
Long	51 metres to 250 metres
Very Long	251 metres to 500 metres
Distant	501 metres to 5 kilometres
Very Distant	5 kilometres to 500 kilometres
Continental	501 to 5,000 kilometres
Planetary	5,000 to 50,000 kilometres

For example, a psionic Traveller could read the mind of a target at Long range using Read Surface Thoughts for 2 Psionic Strength points normally, or boost it to Very Long range for 4 Psionic Strength points, or even Distant for 8 Psionic Strength points.

## TELEPATHY

Telepathy is the talent of mind-to-mind contact. It is normally subtle by nature but can be used to bluntly crush the wills of those who oppose the telepath.

### Life Detection

The most elementary form of telepathy is the ability to detect the presence of other minds. Life detection enables a Traveller to sense the presence of other minds, the number of minds present, the general type of minds (animal, human, etc.) and their approximate location.

Life detection is reasonably sophisticated, and can distinguish intelligent beings from bacteria or unimportant animals in the area. It functions best in detecting intelligent minds. Shielded minds are undetectable. If an individual whom the telepath knows is detected using this power, he or she will be recognised.

**Check:** Easy (4+) Telepathy (1D x 10 seconds, PSI) check

**Reach:** Distant

**PSI Cost:** 1





## Mind Link

This power is used by telepaths to communicate with one another – it is far easier to create a long lasting telepathic link to another telepath than to a mundane. Both telepaths must use this power for it to work but once this is done, they may communicate silently with one another for a number of minutes equal to the combined Effects of their Telepathy checks.

**Check:** Easy (4+) Telepathy (1D seconds, PSI) check  
**Reach:** Distant  
**PSI Cost:** 1

## Telempathy

The communication of emotions and basic feelings is accomplished by telempathy. This ability serves well in the handling of animals and beasts of burden, but may also be applied as a psychological weapon against humans. Sending of emotions such as love, hate, fear, and others may influence other beings (although not necessarily in the manner desired). The Effect of the Telepathy check is used to judge the strength of the emotion projected.

Telempathy also allows the emotions and feelings of others to be read by a Traveller.

Other telepaths will always recognise when someone is using telempathy to bend their emotions but others will not. The change in mood may be dramatic and inexplicable but most will simply ascribe it to the mercurial nature of human emotions.

**Check:** Routine (6+) Telepathy (1D x 10 seconds, PSI) check  
**Reach:** Long  
**PSI Cost:** 1

## Read Surface Thoughts

The most commonly known feature of telepathy is the ability to read the thoughts of other individuals. Only active, current thoughts are read by this ability, with the subject (if himself not a telepath) unaware of the activity. Individuals with telepathic ability cannot be read due to the presence of their natural shields, unless they willingly lower their shielding. The Effect of the check determines the clarity of the telepath's perceptions.

**Check:** Average (8+) Telepathy (1D x 10 seconds, PSI) check  
**Reach:** Long  
**PSI Cost:** 2

## Send Thoughts

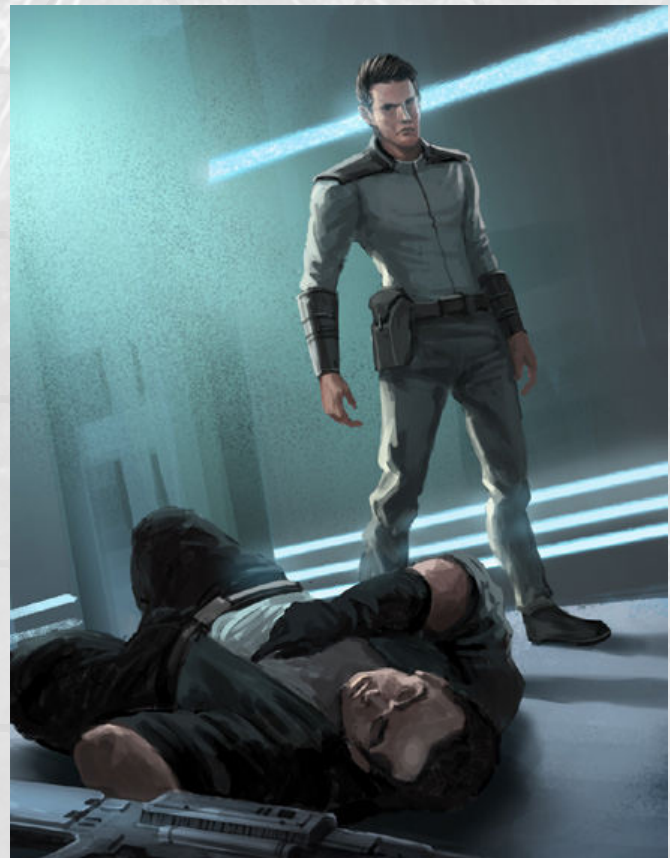
Complementary to the ability to read surface thoughts is the ability to send thoughts to others. Such individuals need not themselves be telepathic to receive such thoughts. Telepathic individuals are normally open to such transmissions, but may close their shields against them if they become bothersome or threatening.

**Check:** Difficult (10+) Telepathy (1D x 10 seconds, PSI) check  
**Reach:** Distant  
**PSI Cost:** 2

## Suggestion

The telepath implants a thought, idea or command into the mind of another, who interprets it as his own. Unless the suggestion is plainly harmful the subject will follow the command or enact upon the idea. If the Effect of the Telepathy check is 6 or more, even suicidal suggestions will be followed.

**Check:** Very Difficult (12+) Telepathy (1D x 10 seconds, PSI) check  
**Reach:** Short  
**PSI Cost:** 3





## Probe

The application of great psionic strength will enable a telepath to delve deep into the mind of a subject and to then read his innermost thoughts. Questioning can be used in the procedure to force the subject to divulge specific information. The telepath can easily determine deliberate untruths told (thought) by the subject. Probe cannot be used against a shielded mind. Again, the Effect of the check determines the clarity of the telepath's perceptions.

**Check:** Very Difficult (12+) Telepathy (1D minutes, PSI) check

**Reach:** Close

**PSI Cost:** 4

## Assault

Violence may be dealt by a telepath. Against an unshielded mind, the result is automatic unconsciousness, and possible death. Against a shielded mind, an instant duel ensues. An unshielded mind, when assaulted telepathically, is rendered unconscious immediately, and the Traveller suffers Effect x 3 damage.

When a shielded mind is assaulted, the two telepaths make opposed Telepathy checks. If the attacker wins, the victim suffers damage as normal.

**Check:** Formidable (14+) Telepathy (1D seconds, PSI) check

**Reach:** Short

**PSI Cost:** 8

## Shield

All telepathically enabled Travellers learn how to create a mental shield which protects the mind against unwanted telepathic interference. Such a shield is automatically in force at all times and requires no PSI expenditure to maintain, but can be lowered to allow telepathic contact or use of telepathic powers.

## CLAIRVOYANCE

Clairvoyance is a talent which allows a person to sense events at some location displaced from the viewer. There are several levels of clairvoyant ability.

Clairvoyance abilities allow eavesdropping activities as well as spying and detection-free exploration of situations. While telepathic life detection will determine the presence of living minds in a closed room, for example, sense will determine if a room is occupied or empty. Clairvoyant activity cannot be sensed by others, including by other psionic talented individuals.

## Sense

The basic ability to sense things at some point in the distance. A Traveller will become aware of the most rudimentary characteristics of a location when applying this ability. For example, the referee will give a basic description, without detail: 'a room, containing four dogs' or 'an open plain with a tree, and no animals or men present'. The clairvoyant Traveller must state the range at which he is applying his talent, and will generally sense the most interesting or important feature at that range. The Effect of the check determines the level of accuracy and clarity.

**Check:** Routine (6+) Clairvoyance (1D x 10 seconds, PSI) check

**Reach:** Very Distant

**PSI Cost:** 1

## Tactical Awareness

With this ability, the Traveller can perceive dangers and foes around him using his clairvoyant abilities. This enhanced spatial perception allows him to ignore the effects of darkness, smoke, fog or other environmental effects that impede vision. He may also detect hidden foes within range. The Effect of the check determines the number of combat rounds the awareness lasts.

**Check:** Average (8+) Clairvoyance (1D seconds, PSI) check

**Reach:** Long

**PSI Cost:** 2

## Clairvoyance

This specific ability allows actual viewing of a situation at some displaced point. The clairvoyant Traveller must state the range at which he is applying his talent. The Effect of the check determines the level of detail perceived.

**Check:** Average (8+) Clairvoyance (1D x 10 seconds, PSI) check

**Reach:** Very Distant

**PSI Cost:** 1

## Clairaudience

This ability is identical to clairvoyance, with the exception that it allows hearing instead of seeing.

**Check:** Average (8+) Clairvoyance (1D x 10 seconds, PSI) check

**Reach:** Very Distant

**PSI Cost:** 1



## Clairsentience

A Traveller is capable of both seeing and hearing a specific situation by using this power.

**Check:** Difficult (10+) Clairvoyance (1D x 10 seconds, PSI) check

**Reach:** Very Distant

**PSI Cost:** 1

## TELEKINESIS

Telekinesis is the talent which allows objects to be manipulated without physically touching them. Any manipulation is treated as if the person was physically handling the item, but physical danger, pain, or other stimuli are not present. Telekinesis includes a limited amount of sensory awareness, sufficient to allow actual intelligent manipulation.

### Telekinesis

This basic form of the talent allows the Traveller to move objects at range. The Effect of the check determines the duration of the telekinesis in combat rounds. The number of PSI points spent determines the mass that can be moved.

**Check:** Average (8+) Telekinesis (1D seconds, PSI) check

**Reach:** Short

**PSI Cost:** 1 per 100kg.

### Flight

By applying telekinesis to his own body, the Traveller can fly, or at least levitate over short distances. The Traveller can fly for a number of rounds equal to the Effect of the check at a speed of fifteen metres per round.

**Check:** Difficult (10+) Telekinesis (1D seconds, PSI) check

**PSI Cost:** 5

### Telekinetic Punch

Telekinesis can be used as a direct attack, smashing the foe with a blast of telekinetic force. The damage inflicted is equal to the Effect. Protection from any armour is applied as normal.

**Check:** Average (8+) Telekinesis (1D seconds, PSI) check

**Reach:** Short

**PSI Cost:** 1

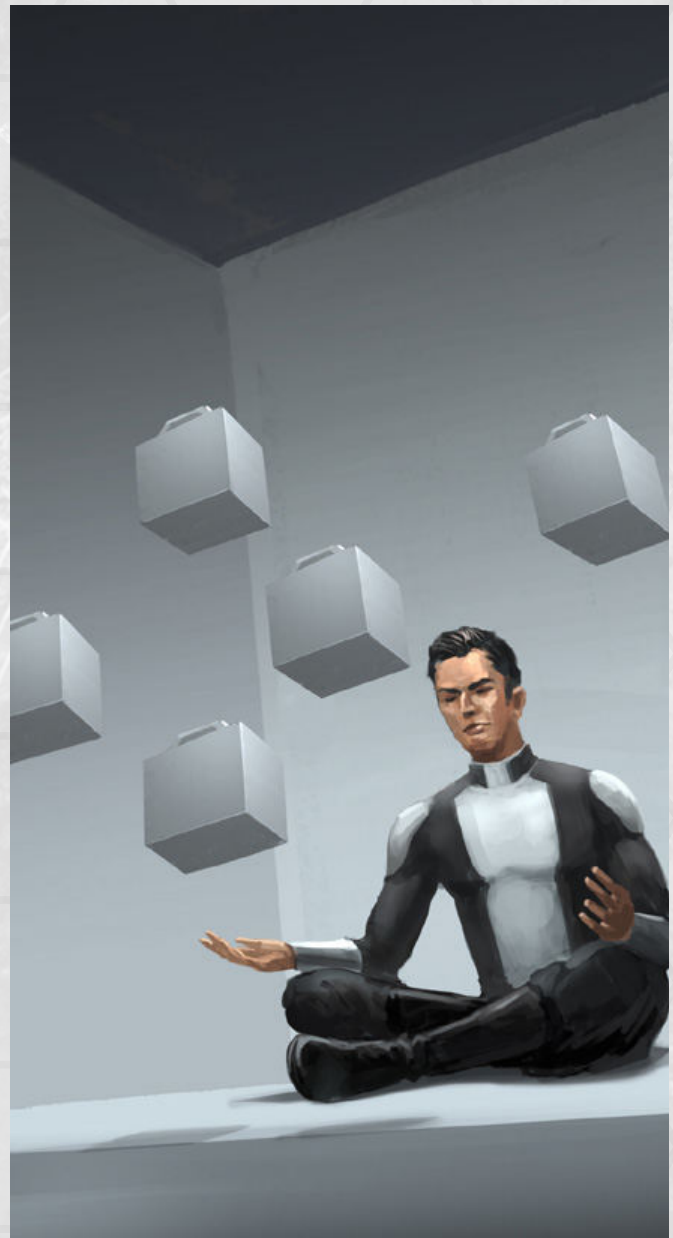
## Microkinesis

This more challenging form of telekinesis allows for fine manipulation of very small or even microscopic objects. A telekinetic can use this power to pick locks, perform microsurgery, sabotage a computer system and so forth.

**Check:** Difficult (10+) Telekinesis (1D x 10 seconds, PSI) check

**Reach:** Close

**PSI Cost:** 3





## Pyrokinesis

By exciting the substance of an object, the Traveller can raise its temperature, possibly even causing it to burst into flames.

Telekinesis Effect	Target...
0-4	becomes warmer, but is undamaged.
5-8	is burnt, suffering 1D damage.
9+	suffers 2D damage, and may burst into flame if flammable.

**Check:** Routine (6+) Telekinesis (1D x 10 seconds, PSI) check

**Reach:** Short

**PSI Cost:** 3

## AWARENESS

Awareness is the psionic talent which allows fine control of one's own body. Awareness powers never have Reach – they are used only on the Traveller himself. Awareness is not capable of affecting others and may never be used for healing or enhancing other Travellers.

### Suspended Animation

Personal body activity may be suspended for varying periods of time. A Traveller with awareness may enter a suspended animation state (similar to cold sleep, but without the intrinsic danger of death) by willing himself into it. Such a state continues for 7 days, without need for food or water, and with minimal air needs. Such a person could effectively travel in a cold sleep berth, without actually undergoing cold sleep and its dangers. Suspended animation may be stopped at any time, provided external stimulus is given to awaken the sleeper (such as a friend nudging them or a mechanical alarm).

**Check:** Average (8+) Awareness (1D minutes, PSI) check  
**PSI Cost:** 3

### Enhanced Strength

PSI points may be converted to STR points on a temporary basis. The Traveller makes the commitment, reduces his available PSI by a specific number of points, and increases his STR characteristic by the same amount. STR reaches its new level immediately, remains at that peak for number of minutes equal to the Effect of the Awareness check x 10, and then declines at the rate of 1 point per minute until the Traveller's normal STR is reached.

**Check:** Average (8+) Awareness (1D seconds, PSI) check  
**PSI Cost:** STR increase

### Enhanced Endurance

PSI points may be converted to END points on a temporary basis. The Traveller makes the commitment, reduces his available PSI by a specific number of points, and increases his END characteristic by the same amount. END reaches its new level immediately, remains at that peak for number of minutes equal to the Effect of the Awareness check x 10, and then declines at the rate of 1 point per minute until the Traveller's normal END is reached.

**Check:** Average (8+) Awareness (1D seconds, PSI) check  
**PSI Cost:** END increase

### Fortitude

By channelling psychic energy to his skeletal structure and boosting his healing rate, the Traveller can enhance his ability to absorb damage. Fortitude lasts a number of rounds equal to the Effect of the Awareness check and provides Armour protection equal to the number of PSI points expended. Fortitude stacks with worn armour.

**Check:** Difficult (10+) Awareness (1D seconds, PSI) check

**PSI Cost:** Amount of Armour

### Inspiration

Through both mental and physical activities, psionic enhancement can lead to flashes of inspiration, dexterous fine-tuning, and momentarily toughened physique. Inspiration adds a Boon to any one check the Traveller attempts within the next minute.

**Check:** Average (8+) Awareness (1D seconds, PSI) check  
**PSI Cost:** 1

### Regeneration

Wounds may be healed by the application of this power, exchanging one PSI point to regenerate one lost characteristic point. Should one session of healing be insufficient, further healing and regeneration may be applied after expended PSI is recovered. Regeneration may also be applied to the growing of new limbs or organs to replace lost ones, or to heal old wounds suffered prior to psionic training. Regeneration may not be used to counteract ageing, nor may it be used to regain lost SOC.

**Check:** Difficult (10+) Awareness (1D x 10 seconds, PSI) check

**PSI Cost:** Amount healed



## TELEPORTATION

Teleportation is a talent which allows effectively instantaneous movement from one point to another point, without regard to intervening matter. Psionic teleportation is limited to the movement of the teleported Traveller's body and (for highly skilled teleports) their clothing and equipment.

**Check:** Average (8+) Teleportation (1D seconds, PSI) check

**Reach:** Distant

**PSI Cost:** 2



To teleport with clothing and up to 10 kg of equipment, the Teleportation check is increased to Difficult (10+) and costs an additional 2 PSI.

To teleport with clothing and up to 500 kg of equipment, the Teleportation check is increased to Very Difficult (12+) and costs an additional 4 PSI.

Teleportation always involves the movement of one's body to another location. Independent items or other individuals may not be moved. Teleportation involves certain requirements in order to be accurate, and to insure obedience of the laws of physics.

**Pre-knowledge of Destination:** A Traveller must always have a mental image of his or her destination before teleporting. This mental image is acquired by personally visiting the location first (this includes viewing it from a distance), having the mental image implanted in one's mind (by telepathy) by another person who has visited the destination, or by viewing the location through clairvoyance.

**Energy and Momentum:** Teleportation involves serious restrictions on movement in order to ensure the conservation of energy and momentum, two laws of physics that can cause teleporting Travellers serious issues.

On planetary surfaces, teleportation is restricted to jumps of no more than Very Distant ranges. Jumps beyond visual range involve disorientation for a period of 2D –Effect of Teleportation check x 10 seconds.

This restriction results from the law of conservation of momentum; on a rotating planet, two locations will have different rotational speeds and directions. A jump from a point on the Earth's equator to its antipode would result in a total velocity difference between the Traveller and his surroundings of over 3,300 kilometres per hour.

Changes in altitude (actually all movement to locations of differing gravitational potential) will result in potential energy changes, manifesting themselves as changes in body temperature. A jump of one kilometre straight down will result in a temperature increase of 2.5° C; this is sufficient to cause extreme fever, brain damage, and even death. A jump up will cool the body by the same amount, with equally serious results. To be safe, a jump may not involve an elevation change of more than



400 metres, and multiple jumps should not involve a cumulative elevation change or more than 600 metres in one hour. These problems may be circumvented somewhat through the use of technological devices such as energy compensators, heated suits, and other means. Travellers may feel driven to invent such materials, commission their invention, or seek them out from those who already have them.

## PSIONIC TECHNOLOGY

The ban on psionics within the Imperium means that most of these technologies are illegal in the Third Imperium setting. The exceptions are anti-psionic devices like the psionic shield.

**Psi-Drugs (TL8):** These drugs restore PSI if taken when the Traveller has already spent PSI points, or temporarily increase the Traveller's PSI if taken when he is at full strength.

Psi-Drug	PSI Restored	PSI Boosted	Cost
Standard	3	+2	Cr1000
Double	6	+4	Cr4000
Special	9	+6	Cr10000

A Traveller who takes more than one dose of Standard or Double Psi-Drug, or a single dose of the Special drug must make an END check, with DM-1 per dose of psi-drug taken in the last week. If the check is failed, the Traveller falls ill, suffering 3D damage and permanently reducing his PSI by one.

**Inhibitor Drug (TL9):** Psionic inhibitors dampen the brain's ability to generate psychic effects. A Traveller who takes (or, more often, is forcibly injected with) an inhibitor drug suffers a Bane to all PSI-related checks and cannot regain PSI points. Each hour, the Traveller may make an END check to throw off the effects of the drug. Inhibitor drugs have no effect on non-psionic individuals. The drugs cost Cr500 per dose.

**Psionic Shield (TL12):** Any armour incorporating a helmet or hood can be outfitted with a psionic shield, automatically blocking all telepathy powers. Costs Cr4000.

Buildings and vehicles can also be psionically shielded, but this is much more costly, increasing the cost of the vehicle by 10%.

**Psionic Interface (TL14):** Any weapon or technological device can be outfitted with a psionic interface. A Traveller using a device with a psionic interface can use his PSI DM instead of his DEX DM when using the weapon or device; a Traveller without psionic ability cannot use the device. The Traveller must either touch the device or use Telekinesis to interact with it. Adding a psionic interface increases the cost of the device by 20%.

**Teleportation Suit (TL12):** This device can be integrated into a suit of armour, or worn as a form-hugging body-suit. It rapidly cools or warms the body after a teleport, minimising the damage from sudden energy gains or losses. The suit costs Cr5000, and allows a Traveller to jump up to 600 metres up or down in a single teleport, or up to ten kilometres in a single hour when using successive jumps.



### Using the Psion Career

A Traveller may only attempt to enter the Psion career with the permission of the referee, normally because of the single Life Event (see page 44 of *Book 1: Characters & Combat*) that allows it.

Unlike other careers, a Psion takes skills from the appropriate Specialist table instead of the Service Skills table in basic training.

The Psion must still roll to acquire talents when he determines his PSI. When rolling on the service skills table, if the Psion rolls the skill for a talent he does not yet possess, he may make another roll to acquire that talent.

The assignments for Psions are considered to be separate careers and a Traveller must roll for qualification as normal if he chooses to change assignment during his career.





A career for Travellers who choose to focus on their psionic potential instead of more conventional lifestyles.

**Qualification:** PSI 6+  
DM-1 for every previous career

## ASSIGNMENTS

Choose one of the following.

**Wild Talent:** You developed your powers without formal training.

**Adept:** You are a scholar of the psionic disciplines.

**Psi-Warrior:** You combine combat training with psionic warfare.

## CAREER PROGRESS

	SURVIVAL	ADVANCEMENT
<b>Wild Talent</b>	SOC 6+	INT 8+
<b>Adept</b>	EDU 4+	EDU 8+
<b>Psi-Warrior</b>	END 6+	END 6+

## MUSTERING OUT BENEFITS

1D	CASH	BENEFITS
1	Cr1,000	Gun
2	Cr2,000	2 Ship Shares
3	Cr4,000	Contact
4	Cr4,000	TAS Membership
5	Cr8,000	Contact
6	Cr8,000	Combat Implant
7	Cr16,000	10 Ship Shares

## SKILLS AND TRAINING

1D	PERSONAL DEVELOPMENT	SERVICE SKILLS	ADVANCED EDUCATION (MIN. EDU 8)
1	EDU +1	Telepathy	Language
2	INT +1	Clairvoyance	Art
3	STR +1	Telekinesis	Electronics
4	DEX +1	Awareness	Medic
5	END +1	Teleportation	Science
6	PSI +1	Any Talent	Mechanic
1D	WILD TALENT	ADEPT	PSI-WARRIOR
1	Telepathy	Telepathy	Telepathy
2	Telekinesis	Clairvoyance	Awareness
3	Deception	Awareness	Teleportation
4	Stealth	Medic	Gun Combat
5	Streetwise	Persuade	Vacc Suit
6	Melee or Gun Combat	Science	Recon

## RANKS AND BONUSES

RANK	WILD TALENT	SKILL OR BONUS
0		
1	Survivor	Survival 1 or Streetwise 1
2		
3	Witch	Deception 1
4		
5		
6		



## RANKS AND BONUSES CONT...

RANK	ADEPT	SKILL OR BONUS
0		
1	Initiate	Science (psioniology) 1
2		
3	Acolyte	Any Talent skill 1
4		
5		
6	Master	Any Talent skill 1

RANK	PSI-WARRIOR	SKILL OR BONUS
0	Marine	
1		Gun Combat (any) 1
2	Captain	Leadership 1
3		
4		
5	Force Commander	Tactics (any) 1
6		

## MISHAPS

1D	MISHAP
1	Severely injured (this is the same as a result of 2 on the Injury Table). Alternatively, roll twice on the Injury Table and take the lower result.
2	You telepathically contact something dangerous. Lose one PSI. You also suffer from persistent and terrifying nightmares.
3	An anti-psi cult or gang attempts to expose or attack you. Roll 1D – on a 1-2, you are injured; roll on the Injury Table. On a 3-4, lose one SOC. On a 5-6, nothing else happens, but you still must leave this career.
4	You are asked to use your psionic powers in an unethical fashion. Accept, and you may continue in this career, but you gain an Enemy. Refuse, and you must leave the career.
5	You are experimented on by a corporation, government, or other organisation. You escape, but are forced to leave this career.
6	Your gift causes a former ally to turn on you and betray you. One Ally or Contact becomes an Enemy.

## EVENTS

2D	EVENT
2	Disaster! Roll on the Mishap Table, but you are not ejected from this career.
3	Your psionic abilities make you uncomfortable to be around. One Contact or Ally becomes a Rival.
4	Choose one of these skills, reflecting your time spent mastering mind and body. Gain one of Athletics (any) 1, Stealth 1, Survival 1 or Art (any) 1.
5	You have a chance to use your powers unethically to better your standing. If you accept, roll PSI 8+. If you succeed, gain an extra Benefit roll or +1 SOC. If you fail, lose one SOC.
6	You make an unexpected connection outside your normal circles. Gain a Contact.
7	Life Event. Roll on the Life Events table.
8	You achieve a new level of psionic strength. Increase your PSI by +1.
9	You are given advanced training in a specialist field. Roll EDU 8+ to gain any one skill except Jack-of-all-Trades.
10	You pick up potentially useful information using your psychic powers. Gain DM+1 to any one Benefit roll.
11	You gain a mentor. Gain an Ally and DM+4 to your next Advancement roll (in any career) thanks to his aid.
12	You achieve a new level of discipline in your powers. You are automatically promoted.



# TRADE

As they explore the galaxy, Travellers will have plenty of opportunities to earn money, and either become rich or simply keep their spacecraft running. Some may hire out their services as mercenaries, while others may concentrate on developing a network of contacts that allow them to easily find wealthy patrons. However, everyone can indulge in a little speculative trade or other commercial interests.

Travellers traditionally deal in three forms of commerce; taking on passengers, freight shipping, and speculative trade.



## Referee's Note: On Trade

At first glance, the trading rules in this chapter may look as though they will take time away from adventuring and involve a lot of dice rolling. However, a canny referee can use them to his advantage without increasing his work overload.

We recommend that for most campaigns, referees hand over this entire chapter to the players and simply let them get on with it. You will find they should be able to generate a fairly regular amount of cash which will cover their ship expenses and perhaps allow them some new equipment. Occasionally they will get a 'big score' and occasionally they will make a loss. However, overall there should be a steady progression upwards in their bank balance.

Letting the players handle all their own trading allows the referee to concentrate on his own adventure, perhaps quickly revising the next section or prepping a new encounter while the players work out what they want to trade next and where. It also encourages the players to consult star maps and read planetary descriptions which helps immerse themselves in the setting.

In short, referees have little to fear in letting their players loose in this chapter and everyone stands to gain.



## PASSENGERS

Passage on board any ship is standardised into three categories; high passage, middle passage, basic passage, and low passage, reflecting the quality of service that can be expected during the journey (in a way reflecting first class, business class and cattle class on airlines today). The cost increases with the distance travelled and is for a single jump.

**High Passage:** This is the equivalent of a luxury cruise or flight in first class. Comfortable quarters, good food and staff to wait on hand and foot are expected. It requires a stateroom, one ton of cargo space, and one level of Steward per ten passengers.

**Middle Passage:** This is 'standard' class. There will be a stateroom for every passenger and occasional service from the steward, but it is considered more functional than enjoyable as an experience. It requires a stateroom, 100kg of cargo, and one level of Steward per hundred passengers

**Basic Passage:** For those not willing to risk low berths, the option of basic passage, or steerage as it is often called, exists. Staterooms will be shared (typically four people to a stateroom in bunks) or, on some less scrupulous ships, areas in the cargo bay or engineering will be set aside for very basic accommodation and services (which may only extend to two meals a day and meagre washroom facilities). This requires 2 tons of spare room on the spacecraft, a resilient personality on the part of the passenger, and comes with a 10kg baggage allowance.

**Low Passage:** This involves being cryogenically frozen and stuffed into a tube with the intention of being thawed out when the destination is reached. It is by no means unknown for Travellers to die during low passage, whether from system shock at being frozen, being improperly revived, or simply a malfunction of the low berth. This requires a low berth, and comes with a 10kg baggage allowance.

Travellers considering taking passengers on their own ships should consult the Spacecraft Operations chapter for the requirements needed to do so.



## Passage and Freight Costs

Parsecs Travelled	High Passage	Middle Passage	Basic Passage	Low Passage	Freight
1	Cr8500	Cr6200	Cr2200	Cr700	Cr1000
2	Cr12000	Cr9000	Cr2900	Cr1300	Cr1600
3	Cr20000	Cr15000	Cr4400	Cr2200	Cr3000
4	Cr41000	Cr31000	Cr8600	Cr4300	Cr7000
5	Cr45000	Cr34000	Cr9400	Cr13000	Cr7700
6	Cr470000	Cr350000	Cr93000	Cr96000	Cr86000

## Seeking Passengers

Having enough staterooms (or low berths) on board a spacecraft is one thing – but Travellers looking to make money from bringing passengers on board must find them first.

The number of potential passengers seeking passage to any given destination varies depending on a number of factors. When looking to see how many passengers are available, roll 2D on the Passenger Traffic table four times, once each for Low, Basic, Middle and High passengers, and apply the following modifiers.

The Effect of a Broker, Carouse or Streetwise check

Chief Steward DM+ highest Steward skill on ship

Rolling for High Passengers DM-4  
Rolling for Low Passengers DM+1

World Population 1 or less DM-4  
World Population 6-7 DM+1  
World Population 8 or more DM+3

Starport A DM+2  
Starport B DM+1  
Starport E DM-1  
Starport X DM-3

Amber Zone DM+1  
Red Zone DM-4

The referee may add his own modifiers as he sees fit, factoring in a war that might induce people to leave a world, for example, or a tourist attraction or booming economy drawing people to a planet.

Passengers pay an amount for their passage depending on the distance travelled and degree of luxury as shown on the Passage and Freight table.

More details on passengers can be found on page 85. The number of passengers available cannot usually exceed the number of people resident on a planet, except in unusual circumstances (for example,

## Passenger Traffic

2D	Passengers
1 or less	0
2	1D
3	1D
4	2D
5	2D
6	2D
7	3D
8	3D
9	3D
10	3D
11	4D
12	4D
13	4D
14	5D
15	5D
16	6D
17	7D
18	8D
19	9D
20 or more	10D

a passenger liner might break down in a nearly uninhabited system, so a planet with a population of only a few dozen might have hundreds of passengers clamouring for transport out).

## FREIGHT

Travellers not wishing to risk speculative trade can go for the safer option of shipping freight. Freight shipments pay a fixed rate as shown on the Passage and Freight table.

Freight lots must be transported in their entirety, and come in three sizes.

- Major Cargo lots are composed of 1D x 10 tons of freight.
- Minor Cargo lots are composed of 1D x 5 tons of freight.
- Incidental Cargo lots are composed of 1D tons of freight.

To determine the number of cargo lots available, roll 2D on the Freight Traffic table three times, once each for Incidental, Minor, and Major lots, and apply the following modifiers.





The Effect of a Broker or Streetwise check

Rolling for Major Cargo DM-4  
 Rolling for Incidental Cargo DM+2

World Population 1 or less DM-4  
 World Population 6-7 DM+2  
 World Population 8 or more DM+4

Starport A DM+2  
 Starport B DM+1  
 Starport E DM-1  
 Starport X DM-3

Tech Level 6 or less DM-1  
 Tech Level 9 or more DM+2

Amber Zone DM-2  
 Red Zone DM-6

The referee may add his own modifiers as he sees fit. An industrial revolution will likely increase available cargo, for example, while a famine will reduce it.

A freight lot cannot be broken up. Cargo is paid for upon delivery, assuming it is delivered on time. Failing to deliver cargo on time reduces the amount paid by 1D+4 x 10%.

**Mail**

Mail is a special form of freight, consisting of large data storage drums which contain a vast amount of

**Freight Traffic**

2D	Lots
1 or less	0
2	1D
3	1D
4	2D
5	2D
6	3D
7	3D
8	3D
9	4D
10	4D
11	4D
12	5D
13	5D
14	5D
15	6D
16	6D
17	7D
18	8D
19	9D
20 or more	10D

information, as well as physical packages, that must be transported from one world to another, but not vital enough to be entrusted to the X-Boat service or a private courier. To determine if there is mail available, determine the applicable modifiers on the Mail table, then roll 2D.



## Exciting Passengers

Referees on the ball will have already spotted the possibility of using passengers as a way to spice up the lives of their Travellers. This is in perfect keeping with *Traveller* and has our wholehearted support.

For example, passengers may be wanted criminals, a runaway couple hoping to escape their cruel parents, a desperate escapee from prison looking to hijack a ship to freedom, a rogue psion... or anything else the referee can devise to make life 'interesting' for the Travellers.

While this is not recommended for every time the Travellers take passengers on board their ship, referees might like to use the Random Passenger table as a starting point to creating passengers the Travellers will remember, or perhaps even the Allies and Enemies or Random Quirks and Personalities tables on page 13 and 14.

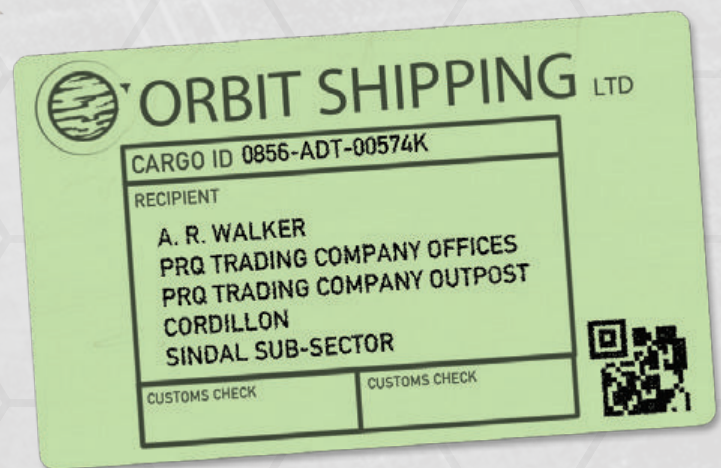
## Random Passenger

D66	Passenger	D66	Passenger
11	Refugee – political	41	Ex-scout
12	Refugee - economic	42	Wanderer
13	Starting a new life offworld	43	Thief or other criminal
14	Mercenary	44	Scientist
15	Spy	45	Journalist or researcher
16	Corporate executive	46	Entertainer (Steward and Perform of 1D-1 each)
21	Out to see the universe	51	Gambler (Gambling skill of 1D-1)
22	Tourist (1-3: Irritating, 4-6: Charming)	52	Rich noble – complains a lot
23	Wide-eyed yokel	53	Rich noble - eccentric
24	Adventurer	54	Rich noble – raconteur
25	Explorer	55	Diplomat on a mission
26	Claustrophobic	56	Agent on a mission
31	Expectant Mother	61	Patron
32	Wants to stowaway or join the crew	62	Alien
33	Possesses something dangerous or illegal	63	Bounty Hunter
34	Causes trouble (1-3: Drunkard, 4-5: Violent, 6: Insane)	64	On the run
35	Unusually pretty or handsome	65	Wants to be on board the Travellers' ship for some reason
36	Engineer (Mechanic and Engineer of 1D-1 each)	66	Hijacker or pirate agent

## Mail

Freight Traffic DM-10 or less: DM-2  
 Freight Traffic DM-9 to -5: DM-1  
 Freight Traffic DM-4 to +4: DM+0  
 Freight Traffic DM 5 to 9: DM+1  
 Freight Traffic DM 10 or more: DM+2  
 Travellers' ship is armed: DM+2  
 + Travellers' highest Naval or Scout rank  
 + Travellers' highest Social Standing DM  
 World is TL of 5 or less: DM-4

On 12 or more, the Travellers are chosen to transport mail to the destination world. Mail containers take





up five tons of space, and the Travellers will be paid Cr25000 for transporting the container. There will be 1D containers available to transport and the Travellers must take them all or none at all.

## SPECULATIVE TRADE & SMUGGLING

The greatest profits and losses are to be found in speculative trade – buying low and selling high across the stars. It sounds simple, but while great fortunes have been made through speculative trade, many ships have found themselves bankrupted by the same process.

Speculative trade is performed by going through the following steps.

### Trade Checklist

1. Find a supplier
2. Determine goods available
3. Determine purchase price
4. Purchase goods
5. Travel to another market
6. Find a buyer
7. Determine sale price

### Find a Supplier

On worlds regularly visited by trade vessels, finding a supplier is easy. There are traders and brokers at the starport eager to deal with offworlders, and the whole planetary economy may rely on trade with other planets. Technologically advanced worlds will have computer networks that can be searched for suppliers while on lower-tech worlds, traders seek out suppliers in markets and bazaars. Travellers can search for multiple suppliers, but there is DM-1 per previous attempt on a planet in the same month.

### Local Brokers and Guides

A trader can hire a local guide, to help him find a supplier, or a local broker to help him negotiate a deal. A local guide will have a Broker skill equal to 1D-2. DM+1 can be added to this roll for every 5% of the total value of the trade that is given to the guide, to a maximum of DM+4. Black market guides require 10% of the value for every DM+1,



### Making a Living

Speculative trading can be harsh to the newcomer, especially if they are unskilled, and even the most experienced broker can be caught by a bad trade and lose tens of thousands of credits – or more.

It may occur to some Travellers to ask how can the big shipping corporations even survive, let alone make a profit, if they are doing the same risky speculative trading as everyone else. The answer is simple. They don't.

Just as in our world, the big boys follow different rules to the little guy. A big, interstellar corporation not only has far larger ships that can carry far more cargo, but also government contracts, the ability to bribe their way ahead of small competitors, contacts among suppliers, tax breaks, and many other ploys that keep them one step ahead.

Travellers with enough financial resources to make this jump to the big time will find the rules for doing so in *Merchant Prince*.



The following skill checks are used to find suppliers.

*Finding a Supplier:* Average (8+) Broker check (1D days, EDU or SOC).

*Finding a Black Market Supplier of Illegal Goods:* Average (8+) Streetwise check (1D days, EDU or SOC).

*Finding an Online Supplier (TL8+ worlds only):* Average (8+) Admin check (1D hours, EDU).

The size of the Starport provides a bonus to finding a supplier.

Class A: DM+6

Class B: DM+4

Class C: DM+2

### Determine Goods Available

Goods are divided into two categories; Common and Trade Goods. Common Goods can be purchased on any world. Trade Goods can usually only be found on a world with a matching trade code. The amount of each type of goods available are limited – the tons column determines how many tons of a given type of goods are available for purchase.





## Illegal Goods

Some goods are illegal throughout the Imperium. These are marked as illegal in the Trade Goods tables. Other goods are illegal only on particular worlds (see Law Level, page 99).

Trade in illegal goods is highly profitable, but risky. Universally illegal goods have high Sale DMs. For other banned goods, their Sale DM is the difference between the Law Level they are banned at and the Law Level of the world. For example, Military Weapons are banned at Law Level 3. If a trader smuggles any weapons onto a Law Level 9 world, the weapons have Sale DM+6 (if a type of goods is both universally and locally illegal, use whichever Sale DM is higher).

The downside of smuggling is that if the trader is caught, he faces fines or imprisonment. See Law Levels, page 99.



A given supplier has all Common Goods available, the Trade Goods that match the world's trade code, and 1D randomly determined goods. Roll on the Trade Goods table to randomly determine the goods available, ignoring results 61-65 unless dealing with a black market supplier. If you roll the same type of goods multiple times, then the supplier has extra amounts of those goods available.

Some goods are illegal, and can be purchased only through a black market supplier. A black market supplier has whatever illegal goods match his world's trade code, as well as any randomly rolled illegal goods.

*For example, the characters have contacted a supplier on an Industrial world. Consulting the Trade Goods table, the supplier has the following goods available: Basic Electronics, Basic Machine Parts, Basic Manufactured Goods, Basic Raw Materials, Basic Vehicles, Basic Ore, Advanced Electronics, Advanced Machine Parts, Advanced Manufactured Goods, Advanced Weapons, Advanced Vehicles, Polymers & Robots, as all those goods are Common or Industrial. The referee can now generate an additional 1D types of goods to reflect the random items the supplier has.*

## Determine Purchase Price

To determine the purchase price, roll 3D and apply the following modifiers.

- +The Traveller's Broker skill (or the local broker's skill)
- +any DM from the Purchase DM column
- any DM from the Sale DM column

## Modified Price

Result	Purchase Price	Sale Price
-1 or less	200%	30%
0	175%	40%
1	150%	45%
2	135%	50%
3	125%	55%
4	120%	60%
5	115%	65%
6	110%	70%
7	105%	75%
8	100%	80%
9	95%	85%
10	90%	90%
11	85%	100%
12	80%	105%
13	75%	110%
14	70%	115%
15	65%	120%
16	60%	125%
17	55%	130%
18	50%	135%
19	45%	140%
20	40%	145%
21	35%	150%
22	30%	155%
23+	25%	160%

-any DM from the supplier. Some especially rich or powerful suppliers can demand high prices.

In cases where multiple Purchase or Sale DMs apply, use only the largest from each column.

Next, consult the Purchase column of the Modified Price table. The trader does not have to accept this price, but if he rejects the deal, he cannot deal with that supplier again for at least a month.

Purchase and Sale Prices are calculated as a percentage of the Base Price.

## Selling Goods

Selling goods works just like purchasing goods, with the following changes.

- A Traveller must find a buyer, instead of a supplier. The same rules apply.
- When selling goods, add the Sale DMs for the world trade code and subtract the Purchase DMs.

If a Traveller does not accept the price offered for his goods, he must find another buyer or wait a month.



## Trade Goods

D66	Type	Availability	Tons	Base Price	Purchase DM	Sale DM	Examples
11	Common Electronics	All	2D x 10	Cr20000	Industrial +2, High Tech +3, Rich +1	Non-Industrial +2, Low Tech +1, Poor +1	Simple electronics including basic computers up to TL10
12	Common Industrial Goods	All	2D x 10	Cr10000	Non-Agricultural +2, Industrial +5	Non-Industrial +3, Agricultural +2	Machine components and spare parts for common machinery
13	Common Manufactured Goods	All	2D x 10	Cr20000	Non-Agricultural +2, Industrial +5	Non-Industrial +3, High Population +2	Household appliances, clothing and so forth
14	Common Raw Materials	All	2D x 20	Cr5000	Agricultural +3, Garden +2	Industrial +2, Poor +2	Metal, plastics, chemicals and other basic materials
15	Common Consumables	All	2D x 20	Cr500	Agricultural +3, Water World +2, Garden +1, Asteroid -4	Asteroid +1, Fluid Oceans +1, Ice-Capped +1, High Population +1	Food, drink and other agricultural products
16	Common Ore	All	2D x 20	Cr1000	Asteroid +4	Industrial +3, Non-Industrial +1	Ore bearing common metals
21	Advanced Electronics	Industrial, High Tech	1D x 5	Cr100000	Industrial +2, High Tech +3	Non-Industrial +1, Rich +2, Asteroid +3	Advanced sensors, computers and other electronics up to TL15
22	Advanced Machine Parts	Industrial, High Tech	1D x 5	Cr75000	Industrial +2, High Tech +1	Asteroid +2, Non-Industrial +1	Machine components and spare parts, including gravitic components
23	Advanced Manufactured Goods	Industrial, High Tech	1D x 5	Cr100000	Industrial +1	High Population +1, Rich +2	Devices and clothing incorporating advanced technologies
24	Advanced Weapons	Industrial, High Tech	1D x 5	Cr150000	High Tech +2	Poor +1, Amber Zone +2, Red Zone +4	Firearms, explosives, ammunition, artillery and other military-grade weaponry
25	Advanced Vehicles	Industrial, High Tech	1D x 5	Cr180000	High Tech +2	Asteroid +2, Rich +2	Air/rafts, spacecraft, grav tanks and other vehicles up to TL15
26	Biochemicals	Agricultural, Water World	1D x 5	Cr50000	Agricultural +1, Water World +2	Industrial +2	Biofuels, organic chemicals, extracts
31	Crystals & Gems	Asteroid, Desert, Ice-Capped	1D x 5	Cr20000	Asteroid +2, Desert +1, Ice-Capped +1	Industrial +3, Rich +2	Diamonds, synthetic or natural gemstones
32	Cybernetics	High-Tech	1D	Cr250000	High Tech +1	Asteroid +1, Ice-Capped +1, Rich +2	Cybernetic components, replacement limbs
33	Live Animals	Agricultural, Garden	1D x 10	Cr10000	Agricultural +2	Low Population +3	Riding animals, beasts of burden, exotic pets
34	Luxury Consumables	Agricultural, Garden, Water World	1D x 10	Cr20000	Agricultural +2, Water World +1	Rich +2, High Population +2	Rare foods, fine liquors
35	Luxury Goods	High Pop	1D	Cr200000	High Population +1	Rich +4	Rare or extremely high-quality manufactured goods
36	Medical Supplies	High Tech +2, High Pop	1D x 5	Cr50000	High Tech +2	Industrial +2, Poor +1, Rich +1	Diagnostic equipment, basic drugs, cloning technology



41	Petrochemicals	Desert, Fluid Oceans, Ice-Capped, Water World	1D x 10	Cr10000	Desert +2	Industrial +2, Agricultural +1, Low Tech +2	Oil, liquid fuels	
42	Pharmaceuticals	Asteroid, Desert, High Pop, Water World	1D	Cr100000	Asteroid +2, High Population +1	Rich +2, Low Tech +1	Drugs, medical supplies, anagathics, fast or slow drugs	
43	Polymers	Industrial	1D x 10	Cr7000	Industrial +1	Rich +2, Non-Industrial +1	Plastics and other synthetics	
44	Precious Metals	Asteroid, Desert, Ice Capped, Fluid Oceans	1D	Cr50000	Asteroid +3, Desert +1, Ice-Capped +2	Rich +3, Industrial +2, High Tech +1	Gold, silver, platinum, rare elements	
45	Radioactives	Asteroid, Desert, Low Pop	1D	MCr1	Asteroids +2, Low Population +2	Industrial +3, High Tech +1, Non-Industrial -2, Agricultural -3	Uranium, plutonium, unobtainium, rare elements	
46	Robots	Industrial	1D x 5	Cr400000	Industrial +1	Agricultural +2, High Tech +1	Industrial and personal robots and drones	
51	Spices	Garden, Desert, Water World	1D x 10	Cr6000	Desert +2	High Population +2, Rich +3, Poor +3	Preservatives, luxury food additives, natural drugs	
52	Textiles	Agricultural, Non-Industrial	1D x 20	Cr3000	Agricultural +7	High Population +3, Non-Agricultural +2	Clothing and fabrics	
53	Uncommon Ore	Asteroid, Ice Capped,	1D x 20	Cr5000	Asteroid +4	Industrial +3, Non-Industrial +1	Ore containing precious or valuable metals	
54	Uncommon Raw Materials	Agricultural, Desert, Water World	1D x 10	Cr20000	Agricultural +2, Water World +1	Industrial +2, High Tech +1	Valuable metals like titanium, rare elements	
55	Wood	Agricultural, Garden	1D x 20	Cr1000	Agricultural +6	Rich +2, Industrial +1	Hard or beautiful woods and plant extracts	
56	Vehicles	Industrial, High Tech	1D x 10	Cr15000	Industrial +2, High Tech +1	Non-Industrial +2, High Population +1	Wheeled, tracked and other vehicles from TL10 or lower	
61	Illegal Biochemicals	Agricultural, Water World	1D x 5	Cr50000	Water World +2	Industrial +6	Dangerous chemicals, extracts from endangered species	
62	Cybernetics, Illegal	High Tech	1D	Cr250000	High Tech +1	Asteroid +4, Ice-Capped +4, Rich +8, Amber Zone +6, Red Zone +6	Combat cybernetics, illegal enhancements	
63	Drugs, Illegal	Asteroid, Desert, High Pop, Water World	1D	Cr100000	Asteroid +1, Desert +1, Garden +1, Water World +1	Rich +6, High Population +6	Addictive drugs, combat drugs	
64	Luxuries, Illegal	Agricultural, Garden, Water World	1D	Cr50000	Agricultural +2, Water World +1	Rich +6, High Population +4	Debauched or addictive luxuries	
65	Weapons, Illegal	Industrial, High Tech	1D x 5	Cr150000	High Tech +2	Poor +6, Amber Zone +8, Red Zone +10	Weapons of mass destruction, naval weapons	
66	Exotics	Exotic goods are outside the normal trade rules, and covers such things are alien relics, prototype technology, unique plant or animal life, priceless treasures and so forth. Buying and selling exotic goods is a matter for roleplaying and adventure						



# C H A P T E R - S E V E N

## WORLD AND UNIVERSE CREATION

A universe needs to be created for Travellers to explore and find adventure. Many referees use published universes to save themselves a great deal of time, such as the Third Imperium or 2300AD.

However, some referees will prefer to create their own universes. This chapter will show you how.

### SECTORS AND SUBSECTORS

A universe is mapped in convenient segments, called subsectors. Each subsector is an area of hexagonal cells measuring eight hexes by ten hexes. Since the recommended scale is one parsec (equal to 3.26 light years) per hex, the subsector covers an area ten parsecs by eight parsecs.

Sixteen subsectors (arranged in four rows of four subsectors each) form a sector, probably the largest size practical for a continuing *Traveller* campaign.

Mapping subsectors consists of two sequences: star mapping and world design. Star mapping examines each hexagon in the subsector grid and determines if there is a star system present. It also determines the presence or absence of starports, bases, and fuel for starships. All of this information is coded onto the subsector hexes, and serves as a guide to the referee and to the Travellers during interstellar travel. World design examines the single most important world in each system and determines the basic Characteristics for it. This information is retained for use during adventures on the world's surface.

Note that not all universes will require the creation of a subsector or sector. Indeed, entire campaigns can be set in just one star system (such as with the old *Adventure 1: Beltstrike*) or on a single world or even within a single city (as in *Judge Dredd*).

### STAR MAPPING

In order to create a subsector, the referee uses a blank subsector grid and dice to determine the presence of systems, starports, and bases. The system hex format table shows the coding and placement of information about worlds within a subsector. This format should be used to allow Travellers and referees to note the information that would normally be available to them.

The referee may elect to omit some information, and only allow it to be inserted after the Travellers have determined it themselves.

**World Occurrence:** There is a basic one-half chance normally that a world (and its attendant stellar system) will be in a hex. Systematically check each hex, throwing 1D and marking the hex with a circle if the result is a 4, 5, or 6. This indicates that a world of note or interest is present; otherwise, leave the hex blank.

The referee may elect to alter the normal chances of worlds, making them more frequent or less frequent to correspond to specific regions of the galaxy. A 50% density (no DM) is appropriate for the most areas of the galaxy. Apply DM-2 for 'rift' sectors, DM-1 for sparse sectors and DM+1 for densely populated sectors.

**Starport Type:** Many worlds have starports, their presence being essential to interstellar trade and commerce. See Starports, page 101.

**Bases:** Stellar systems may have bases for military forces, the navy, the scouts, or for other arms of interstellar government. See Bases, page 103.

Bases will also help determine political boundaries in the sector. An interstellar government will place bases along its borders to guard against aggression from rival states, or to control local systems. The presence of multiple bases within a few parsecs might indicate a contested border, or a mighty stronghold.

**Gas Giants:** A star system may have one or more gas giant planets (similar to Jupiter or Saturn). The presence of a gas giant allows streamlined starships to refuel by skimming; this eliminates fuel cost for the vessel and increases profit. It also allows refuelling at systems that do not have starports. Refuelling in this fashion requires 1D days to travel to the gas giant and commence refuelling. Fuel gained by skimming is unrefined.

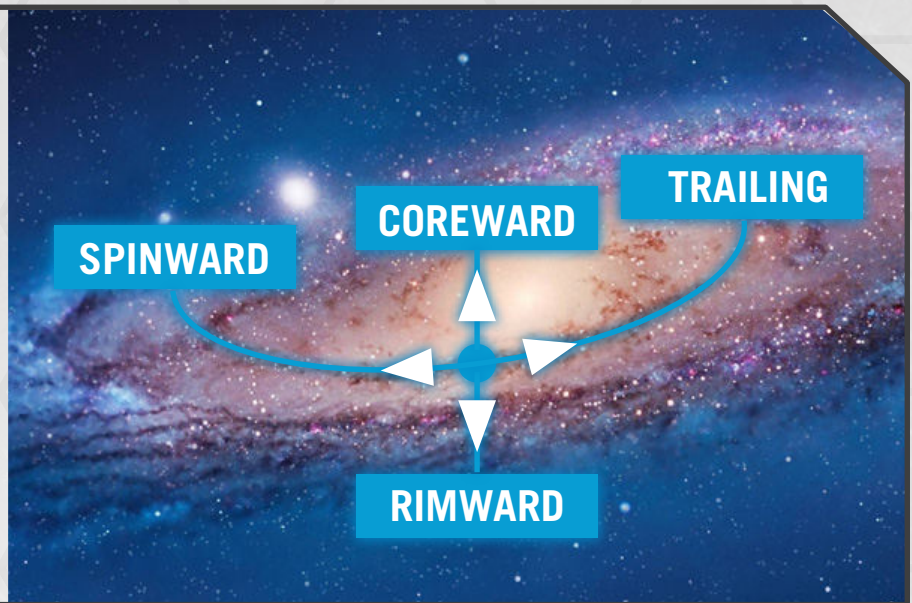
Gas giants are relatively common. As indicated on the system contents table, roll 10+ for a gas giant not to be present in the system. If one is present, mark the system hex in accordance with the world format.

**System Name:** Each system is generally named for the primary world within. This name should be decided upon by the referee and placed in the hex for identification.



## GALACTIC DIRECTIONS

North, south, east, and west are insufficient terms for referring to directions within the galaxy. Instead, the following conventions have achieved widespread acceptance when referring to direction: Coreward – toward the galactic core; Rimward – toward the rim of the galaxy; Spinward – towards the direction the galaxy is rotating (or spinning); Trailing – opposite the spin of the galaxy.



**Travel Zones:** Most worlds are assumed to be civilised, or at least amenable to travellers and visitors. Some, however, are caught in the throes of war, plagued by disease, or simply not ready for interstellar visitors. Such worlds are classified by travel zones to denote such status. In most cases, the referee should indicate travel zones based on the information available. Two such zone types exist; amber and red.

Amber travel zones indicate that travellers should exercise caution when visiting such worlds. The amber code may mean that the citizens of the world are xenophobic, that the political situation is chaotic, or that some other danger exists within the system.

Red travel zones usually indicate that a major danger exists within the system. This danger may be disease and the world is quarantined. The system may be involved in a war, and surface or space battles may be probable. Red travel zones are also used to show a government edict prohibiting entry to the system or world. This may be to protect a local civilisation which is still developing and not yet ready for interstellar contacts, or to protect valuable resources until the government can mine them.

Travel zones are discussed further in World Design.

**Polities:** Worlds may be independent, or part of a larger polity that spans a system or more. Polities range from loose confederations of a few worlds with common trade or defence policies or cultural links, to vast star empires

containing thousand of systems and trillions of citizens. Polity borders should be drawn on the map. Note that larger polities will usually have sub-domains, which should also be marked.

**Communications Routes:** Within the subsector, local governments will have established communications routes connecting some (but not all) worlds. These routes serve as a conduit for messages between businesses and between governments as well as between people. They also serve as the basic routes that liners and large freighters travel. The referee should examine the subsector map and connect key worlds with communications routes. If the subsector is an isolated community, the routes may not leave the map; if it is part of a larger confederation or empire, the routes will probably leave the edges to join with other parts of the sector. Use the starports as guides when drawing communication routes – in general, the best routes are the shortest connections between Class-A starports and naval bases.

Communications routes should be carefully drawn so as to avoid making all parts of the subsector accessible; a subsector should have some areas as backwaters for exploration and adventure. Communications routes are drawn as single lines connecting hexes on the subsector grid.

**Trade Routes:** Trade routes link worlds that have strong commercial ties. Consult the table below – if any pair of worlds matching the two columns are within four



parsecs of each other, and there is a jump-1 or jump-2 route between them, then mark a trade route connecting those two worlds.

First World	Second World
Industrial High Tech	Asteroid Desert Ice-Capped Non-Industrial
High Population Rich	Agricultural Garden Water World

The star map, once generated, shows the distribution of star systems in space, and shows their relationships to each other in terms of relative distance and commercial space-lane connections.

## WORLD CREATION

The term world refers to the various bodies that are contained in a stellar system; it encompasses planets, satellites, and asteroid belts. For example, the single most important world in a system may not be a planet but a satellite of a gas giant or maybe a planetoid within an asteroid belt.

The worlds contained in the star systems on the subsector map may be further classified in terms of their gross physical Characteristics and their effects on persons living on them or travelling to them. These Characteristics indicate specific facts about a world through the use of a numeric rating.

This world creation process applies only to the single most important and most travelled world in a star system; additional planets in a system can be generated by the referee as necessary.

The basic planetary Characteristics are Size, Atmosphere, Hydrographics, Population, Government, Law Level, Technology Level, Starport and Bases, and are generated using 2D each, with DMs applied based upon the results of other Characteristics. These Characteristics establish the basic identity of a world, and are referred to as the Universal Planetary Profile (UPP). Additional information can be generated, and should be, to more fully describe a world.

When creating worlds, a subsector index containing world name, location, Universal Planetary Profile, and other basic data should be compiled. This listing should be available to Travellers who journey through the subsector and is assumed to be routinely available information. In addition, the referee should



## Third Imperium: Routes and Jumps

In the Third Imperium, communication and trade routes are classified by the type of jump drive necessary to travel them. This is simply because of refuelling issues – few starships carry enough fuel to make multiple jumps in succession, so they must make sure to jump only to systems where they can refuel; either to a starport or a system with a gas giant or water-bearing worlds where unrefined fuel can be skimmed.

A jump-1 route has a starport or gas giant in every hex, a jump-2 route has at least one one-hex ‘gap’ between refuelling points (either an empty hex or one without a starport or gas giant), while a jump-3 route has at least one two-hex gap, and so on. In this way, a ship’s captain will know that any route classified at less than or equal to his ship’s jump capability can be travelled with no risk of becoming stranded in deep space.



generate other information which may be pertinent. This may include details of other planets in the star system, radiation Characteristics of the star, the types of terrain present on the planetary surface, unique encounter tables (as described in the Encounters and Dangers chapter), data on flora and fauna, industrial or agricultural capacity, data on social structure and government, and possibly actual maps of the planetary surface.

Creating an entire universe is a fun process and can be as detailed as you like!

## SIZE

The Size Characteristic for worlds ranges from 0 to 10, and is determined by rolling 2D-2. Size measures a world’s diameter in thousands of kilometres, and the bigger a planet, the higher its gravity. The values for gravity in the table below assume that the world has a density similar to that of Earth. Worlds like gas giants have a lower gravity than their size would indicate, while extremely dense worlds would have a higher gravity.

Intelligent species (sophonts) are unlikely to evolve naturally on worlds smaller than Size 4 or 5. Larger planets tend to imply larger populations, as there is more room for expansion.

Worlds of Size 1 or less are asteroids, orbital complexes, space stations and other small satellites, and are much too small to retain a breathable atmosphere.



## Size

Size	Diameter	Example	Surface Gravity (Gs)
0	Less than 1000 km	Asteroid, orbital complex	Negligible
1	1,600 km	Triton	0.05
2	3,200 km	Luna, Europa	0.15
3	4,800 km	Mercury, Ganymede	0.25
4	6,400 km		0.35
5	8,000 km	Mars	0.45
6	9,600 km		0.7
7	11,200 km		0.9
8	12,800 km	Earth	1.0
9	14,400 km		1.25
10 (A)	16,000 km		1.4

They are uninhabitable by most forms of life without technological support.

## High & Low Gravity Worlds

Worlds where the gravity is 0.7 G or less (Size 6 or less) are low-gravity worlds. Common features include improbable-looking rock formations, thin and spindly life forms and flying as a common form of locomotion (assuming the atmosphere is thick enough to support flyers). The effect on Travellers is detailed on page 3.

High-gravity worlds have a gravity of 1.4 G or more. They tend to be extremely dense worlds; common features include wide rocky plains, squat, muscular creatures, and plant life that spreads out like lichen instead of growing up. Crawling, burrowing or swimming are the commonest forms of locomotion.

## ATMOSPHERE

The Atmosphere Characteristic measures the type of atmosphere present. A planet's Atmosphere is generated by rolling 2D-7 and adding the planet's Size.

### Atmosphere Types

**Tainted:** Tainted atmospheres contain some element that is harmful to humans, such as an unusually high proportion of carbon dioxide. A Traveller who breathes a tainted atmosphere without a filter will suffer 1D damage every few minutes (or potentially hours, depending on the level of taint), in addition to any other effects.



## Reading World Profiles

Previous editions of Traveller and various websites may describe planets using a single line of hexadecimal code, such as:

Cogri 0101 CA6A643-9 N Ri Wa A

Once you get used to this method of laying out the Characteristics of a planet, it becomes easy to decipher during play.

The first component is the name.

The second component (the four digit number) is the hex location (denoting column and row).

The next string of digits following the hex location denote, in order:

- Starport quality
- Size
- Atmosphere Type
- Hydrographic percentage
- Population
- Government Type
- Law Level
- Tech Level

The next component marks any bases present on the world – examples include N for Naval Base, S for Scout Base.

This is followed by any Trade Codes for the planet.

The travel zone for the system is next; A = Amber Zone, R = Red Zone. If no code is given then the world is either unclassified or a Green Zone.



**Exotic:** An exotic atmosphere is unbreathable by humans, but is not otherwise hazardous. A Traveller needs an air supply to breath in an exotic atmosphere without suffocating.

**Corrosive:** Corrosive atmospheres are highly dangerous. A Traveller who breathes in a corrosive atmosphere will suffer 1D damage each round.

**Insidious:** An insidious atmosphere is like a corrosive one, but it is so potent that it attacks equipment as



## Atmosphere

Atmosphere	Composition	Examples	Pressure	Survival Gear Required
0	None	Moon	0.00	Vacc Suit
1	Trace	Mars	0.001 to 0.09	Vacc Suit
2	Very Thin, Tainted		0.1 to 0.42	Respirator, Filter
3	Very Thin		0.1 to 0.42	Respirator
4	Thin, Tainted		0.43 to 0.7	Filter
5	Thin		0.43 to 0.7	
6	Standard	Earth	0.71-1.49	
7	Standard, Tainted		0.71-1.49	Filter
8	Dense		1.5 to 2.49	
9	Dense, tainted		1.5 to 2.49	Filter
10 (A)	Exotic		Varies	Air Supply
11 (B)	Corrosive	Venus	Varies	Vacc Suit
12 (C)	Insidious		Varies	Vacc Suit
13 (D)	Very Dense		2.5+	
14 (E)	Low		0.5 or less	
15 (F)	Unusual		Varies	Varies

well. The chief danger in an insidious atmosphere is that the toxic gases will destroy the seals and filters on the Traveller's protective gear. An insidious atmosphere worms its way past protection after 2D hours on average, although vigilant maintenance or advanced protective gear can prolong survival times.

**Dense:** These worlds have thick  $N_2/O_2$  atmospheres, but their mean surface pressure is too high to support unprotected human life (high pressure nitrogen and oxygen are deadly to humans). However, pressure naturally decreases with increasing altitude, so if there are highlands at the right altitude the pressure may drop enough to support human life. Alternatively, there may not be any topography high enough for humans to inhabit, necessitating floating gravitic or dirigible habitats or sealed habitats on the surface.

**Low:** The opposite of a Dense atmosphere, these massive worlds have thin  $N_2/O_2$  atmospheres that settle in the lowlands and depressions and are only breathable there - the pressure drops off so rapidly with altitude that the highest topographic points of the surface may be close to vacuum.

**Unusual:** An Unusual atmosphere is a catchall term for an atmosphere that behaves in a strange manner. Examples include ellipsoidal atmospheres, which are thin at the poles and dense at the equator; Panthalassic worlds

composed of a rocky core surrounded by a water layer hundreds of kilometres thick; worlds wracked by storms so intense that local air pressure changes from dense to thin depending on the current weather and other planets with unusual and hazardous atmospheric conditions.

## HYDROGRAPHICS

The Hydrographic characteristic measures the amount of surface liquid, and hence the amount of dry land on the world. Hydrographic percentage goes from 0 to 10, measuring the surface liquid in increments of 10%. For normal worlds, this will be water; on other worlds with corrosive or exotic atmospheres, it could be a corrosive or exotic liquid like ammonia.

Hydrographic percentage is obtained by rolling 2D-7 and adding the planet's atmosphere, some atmospheres use the modifier listed below instead.

**Size 0 or 1:** Hydrographic 0  
**Atmosphere 0, 1, A, B or C:** DM-4

If the planet's atmosphere is *not* D or Panthalassic F (and thick enough to retain water under extreme space circumstances), then also apply DMs for temperature.

**Hot Temperature:** DM-2

**Boiling Temperature:** DM-6



## Hydrographics

Hydrographics	Hydrographic Percentage	Description
0	0%-5%	Desert world
1	6%-15%	Dry world
2	16%-25%	A few small seas.
3	26%-35%	Small seas and oceans.
4	36%-45%	Wet world
5	46%-55%	Large oceans
6	56%-65%	
7	66%-75%	Earth-like world
8	76%-85%	Water world
9	86%-95%	Only a few small islands and archipelagos.
10 (A)	96-100%	Almost entirely water.

## POPULATION

The Population characteristic measures the planet's intelligent population. The Population characteristic can be generalised as the number of zeroes following a one, so a population of 6 indicates a population in the millions (1,000,000).

Population is generated with 2D-2.

### Low-Population Worlds

Planets with a Population of 6 or less are very small colonies, and may differ considerably from the descriptions in the rest of this chapter. A world with a Population of 1 can change its Government type with an argument over dinner, and is unlikely to bother with a world-wide network of communications satellites even at TL15.

If a world has a Population of 0, it is uninhabited and so has a Government, Law Level and Technology Level of 0.

## GOVERNMENT

The Government characteristic indicates a range of possible ruling systems, and is determined by rolling 2D-7 and adding the planet's Population characteristic.

The Common Contraband column on the Government table determines goods such a government is likely to restrict, but should not be taken as a universal rule.

### Rivals, Factions, Connections & Colonies

The Government characteristic determines the dominant government type on that planet, but there are usually other factions such rival political parties, cultural groups, religions, rebels and so forth who oppose the



## World Temperature

A planet's surface temperature is primarily dependent on its distance from its sun (how much solar radiation it receives) and how thick its atmosphere is (how much of this heat it can retain). The habitable zone is the area around a star which is most conducive to the development of Earth-like, habitable worlds, and it is assumed that most colonised worlds will be in this habitable zone. Roll 2D for the planet's temperature, applying the DMs listed below.

### Temperature

2D	Type	Average Temperature	Description
2 or less	Frozen	-51° or less	Frozen world. No liquid water, very dry atmosphere.
3-4	Cold	-51° to 0°	Icy world. Little liquid water, extensive ice caps, few clouds.
5-9	Temperate	0°-30°	Temperate world. Earth-like. Liquid & vaporised water are common, moderate ice caps.
10-11	Hot	31°-80°	Hot world. Small or no ice caps, little liquid water. Most water in the form of clouds.
12 or more	Boiling	81°+	Boiling world. No ice caps, little liquid water.

**Atmosphere 0 or 1:** No modifiers, but temperature swings from roasting during the day to frozen at night.

**Atmosphere 2 or 3:** DM-2

**Atmosphere 4, 5 or E:** DM -1

**Atmosphere 6 or 7:** DM+0

**Atmosphere 8 or 9:** DM+1

**Atmosphere A, D or F:** DM+2

**Atmosphere B or C:** DM+6

Optionally, the referee may also choose to impose one of the following.

**Hot edge of Habitable Zone:** DM+4

**Cold edge of Habitable Zone:** DM-4





## Population

Population	Inhabitants	Range	Description
0	None	0	
1	Few	1+	A tiny farmstead or a single family
2	Hundreds	100+	A village
3	Thousands	1,000+	
4	Tens of thousands	10,000+	Small town
5	Hundreds of thousands	100,000+	Average city
6	Millions	1,000,000+	
7	Tens of millions	10,000,000+	Large city
8	Hundreds of millions	100,000,000+	
9	Billions	1,000,000,000+	Present day Earth
10 (A)	Tens of billions	10,000,000,000+	
11 (B)	Hundreds of billions	100,000,000,000+	Incredibly crowded world
12 (C)	Trillions	1,000,000,000,000+	World-city

government. Conflicts on a planet often involve the Travellers; they might be hired to smuggle weapons to a rebel group, or be asked to investigate a political scandal involving a government leader.

Roll D3 to determine how many factions there are on the planet, with DM+1 if the Government type is 0 or 7, and DM-1 if the Government type is 10 or more. In cases where the faction type is the same as the current Government type (or similar, such as two democracies or two dictatorships), then it is a splinter faction within the ruling government. In cases where it is radically different (anarchists against a bureaucracy), then the faction is a rebel group or movement.

For each faction, use the Government table again to determine what form it takes. Then roll 2D on the table below to determine the strength of each faction.

## Factions

2D	Relative Strength
2-3	Obscure group – few have heard of them, no popular support
4-5	Fringe group – few supporters
6-7	Minor group – some supporters
8-9	Notable group – significant support, well known
10-11	Significant – nearly as powerful as government
12	Overwhelming popular support – more powerful than government

## Cultural Differences

While colonies trace their heritage back to their mother worlds and patron governments, and from then onto the ancient homeworlds of the species, every world has a measure of unique cultural drift. Spacefarers may

run into bizarre customs or beliefs on different worlds. The referee should either decide how a culture has developed over the centuries, or roll on the following table (or better yet, both – a combination of reasoned extrapolation and random strangeness produces a nicely organic-feeling culture).





## Government

Government	Government Type	Description	Examples	Common Contraband
0	None	No government structure. In many cases, family bonds predominate	Family, Clan, Anarchy	None
1	Company/Corporation	Ruling functions are assumed by a company managerial elite, and most citizenry are company employees or dependants	Corporate outpost, asteroid mine, feudal domain	Weapons, Drugs, Travellers
2	Participating Democracy	Ruling functions are reached by the advice and consent of the citizenry directly	Collective, tribal council, comm-linked consensus	Drugs
3	Self-Perpetuating Oligarchy	Ruling functions are performed by a restricted minority, with little or no input from the mass of citizenry	Plutocracy, hereditary ruling caste	Technology, Weapons, Travellers
4	Representative Democracy	Ruling functions are performed by elected representatives	Republic, democracy	Drugs, Weapons, Psionics
5	Feudal Technocracy	Ruling functions are performed by specific individuals for persons who agree to be ruled by them. Relationships are based on the performance of technical activities which are mutually beneficial	Those with access to higher technology tend to have higher social status	Technology, Weapons, Computers
6	Captive Government	Ruling functions are performed by an imposed leadership answerable to an outside group	A colony or conquered area	Weapons, Technology, Travellers
7	Balkanisation	No central authority exists; rival governments compete for control. Law level refers to the government nearest the starport	Multiple governments, civil war	Varies
8	Civil Service Bureaucracy	Ruling functions are performed by government agencies employing individuals selected for their expertise	Technocracy, Communism	Drugs, Weapons,
9	Impersonal Bureaucracy	Ruling functions are performed by agencies which have become insulated from the governed citizens	Entrenched castes of bureaucrats, decaying empire	Technology, Weapons, Drugs, Travellers, Psionics
10 (A)	Charismatic Dictator	Ruling functions are performed by agencies directed by a single leader who enjoys the overwhelming confidence of the citizens	Revolutionary leader, messiah, emperor	None
11 (B)	Non-Charismatic Leader	A previous charismatic dictator has been replaced by a leader through normal channels	Military dictatorship, hereditary kingship	Weapons, Technology, Computers
12 (C)	Charismatic Oligarchy	Ruling functions are performed by a select group of members of an organisation or class which enjoys the overwhelming confidence of the citizenry	Junta, revolutionary council	Weapons
13 (D)	Religious Dictatorship	Ruling functions are performed by a religious organisation without regard to the specific individual needs of the citizenry	Cult, transcendent philosophy, psionic group mind	Varies
14 (E)	Religious Autocracy	Government by a single religious leader having absolute power over the citizenry	Messiah	Varies
15 (F)	Totalitarian Oligarchy	Government by an all-powerful minority which maintains absolute control through widespread coercion and oppression	World church, Ruthless corporation	Varies



## Cultural Differences

D66	Culture	D66	Culture
11	Sexist – one gender is considered subservient or inferior to the other.	31	Barbaric – physical strength and combat prowess are highly valued in the culture. Travellers may be challenged to a fight, or dismissed if they seem incapable of defending themselves. Sports tend towards the bloody and violent.
12	Religious – culture is heavily influenced by a religion or belief systems, possibly one unique to this world.	32	Remnant – the culture is a surviving remnant of a once-great and vibrant civilisation, clinging to its former glory. The world is filled with crumbling ruins, and every story revolves around the good old days.
13	Artistic – art and culture are highly prized. Aesthetic design is important in all artefacts produced on world.	33	Degenerate – the culture is falling apart and is on the brink of war or economic collapse. Violent protests are common, and the social order is decaying.
14	Ritualised – social interaction and trade is highly formalised. Politeness and adherence to traditional forms is considered very important.	34	Progressive – the culture is expanding and vibrant. Fortunes are being made in trade; science is forging bravely ahead.
15	Conservative – the culture resists change and outside influences.	35	Recovering – a recent trauma, such as a plague, war, disaster or despotic regime has left scars on the culture.
16	Xenophobic – the culture distrusts outsiders and alien influences. Offworlders will face considerable prejudice.	36	Nexus – members of many different cultures and species visit here.
21	Taboo – a particular topic is forbidden and cannot be discussed. Travellers who unwittingly mention this topic will be ostracised.	41	Tourist Attraction – some aspect of the culture or the planet draws visitors from all over charted space.
22	Deceptive – trickery and equivocation are considered acceptable. Honesty is a sign of weakness.	42	Violent – physical conflict is common, taking the form of duels, brawls or other contests. Trial by combat is a part of their judicial system.
23	Liberal – the culture welcomes change and offworld influence. Travellers who bring new and strange ideas will be welcomed.	43	Peaceful – physical conflict is almost unheard-of. The culture produces few soldiers, and diplomacy reigns supreme. Forceful Travellers will be ostracised.
24	Honourable – one's word is one's bond in the culture. Lying is both rare and despised.	44	Obsessed – everyone is obsessed with or addicted to a substance, personality, act or item. This monomania pervades every aspect of the culture.
25	Influenced – the culture is heavily influenced by another, neighbouring world. Roll again for a cultural quirk that has been inherited from the culture.	45	Fashion - fine clothing and decoration are considered vitally important in the culture. Underdressed Travellers have no standing here.
26	Fusion – the culture is a merger of two distinct cultures. Roll again twice to determine the quirks inherited from these cultures. If the quirks are incompatible, then the culture is likely divided.	46	At war – the culture is at war, either with another planet or polity, or is troubled by terrorists or rebels.



D66	Culture	D66	Culture
51	Unusual Custom: Offworlders – space travellers hold a unique position in the culture’s mythology or beliefs, and travellers will be expected to live up to these myths.	61	Unusual Customs: Trade – the culture has an odd attitude towards some aspect of commerce, which may interfere with trade at the spaceport. For example, merchants might expect a gift as part of a deal, or some goods may only be handled by certain families.
52	Unusual Custom: Starport – the planet’s starport is more than a commercial centre; it might be a religious temple, or be seen as highly controversial and surrounded by protestors.	62	Unusual Customs: Nobility – those of high social standing have a strange custom associated with them; perhaps nobles are blinded, or must live in gilded cages, or only serve for a single year before being exiled.
53	Unusual Custom: Media – news agencies and telecommunications channels are especially strange here. Getting accurate information may be difficult.	63	Unusual Customs: Sex – the culture has an unusual attitude towards intercourse and reproduction. Perhaps cloning is used instead, or sex is used to seal commercial deals.
54	Unusual Customs: Technology – the culture interacts with technology in an unusual way. Telecommunications might be banned, robots might have civil rights, or cyborgs might be property.	64	Unusual Customs: Eating – food and drink occupies an unusual place in the culture. Perhaps eating is a private affair, or banquets and formal dinners are seen as the highest form of politeness.
55	Unusual Customs: Lifecycle – there might be a mandatory age of termination, or anagathics might be widely used. Family units might be different, with children being raised by the state or banned in favour of cloning.	65	Unusual Customs: Travel – travellers may be distrusted or feted, or perhaps the culture frowns on those who leave their homes.
56	Unusual Customs: Social Standings – the culture has a distinct caste system. Travellers of a low social standing who do not behave appropriately will face punishment.	66	Unusual Custom: Conspiracy – something strange is going on. The government is being subverted by another group or agency.

## LAW LEVEL

The Law Level of a planet represents the relative force of law extant on the world. A high Law Level indicates that visitors to the world will have their activities curtailed. Law Level determines two things in particular – what it is illegal for Travellers to possess on the world, and the likelihood the Travellers will run afoul of the law.

Law Level is determined by rolling 2D-7 and adding the Government characteristic.

### Banned Goods

Different governments ban different goods. A Traveller might be able to carry his laser rifle slung over his shoulder on one world and be arrested for carrying a simple knife on the next planet over. An alien might enjoy full rights on one world, and be treated as an animal on another. Banned goods are important for smuggling.

As far as Travellers are concerned, the most common restriction a government imposes is on the possession of weapons, and this is reflected in the Law Level table. However, the referee might consider the stance of a government for all of the following.

**Weapons:** A government that bans weapons begins with restricting weapons of terror and mass destruction, then moves onto personal weapons. Governments will also often ban armour, with a view that an overly militarised appearance simply attracts trouble.

**Drugs:** A government that bans drugs begins with narcotics, but at higher Law Levels, medicinal and anagathic drugs are also banned.

**Information:** A government that seeks to control information begins by restricting the use of computers and computer programs, especially information-retrieval



and information-control. At higher Law Levels, bringing in data from offworld or even communicating with natives is forbidden.

**Technology:** A government that bans technology seeks to shield its citizens from the influence of advanced technology.

**Travellers:** A ban on Travellers restricts the ability of outsiders to visit the world, confining them to the starport or forbidding them landing entirely.

**Psionics:** Restrictions on psionics are common, and most worlds ban psionics as a matter of course. On other worlds, psionics may be technically legal, but there is such prejudice against it that most psionic users hide their abilities.

## Law Level

Law Level	Weapons Banned	Armour
0	No restrictions – heavy armour and a handy weapon recommended...	
1	Poison gas, explosives, undetectable weapons, WMD	Battle dress
2	Portable energy and laser weapons	Combat armour
3	Military weapons	Flak
4	Light assault weapons and submachine guns	Cloth
5	Personal concealable weapons	Mesh
6	All firearms except shotguns & stunners; carrying weapons discouraged	
7	Shotguns	
8	All bladed weapons, stunners	All visible armour
9+	All weapons	All armour

## The Law & Travellers

A planet's Law Level can be used to determine the Travellers' interactions with the law. In each of the following situations, roll 2D, add the listed modifiers, and if the total is equal to or lower than the planet's Law Level, the Travellers are investigated or challenged by agents of planetary law enforcement.

Situation	DM	Response
First approach to a planet	+0	Check
Offworlders wandering the streets of a city (once per day)	+0	Check
Offworlders acting suspiciously	-1	Check
Bar fight	-1	Apprehended
Shots fired	-2	Apprehended
Breaking and entering	-2	Investigate
Firefight involving armoured Travellers and military weapons	-4	Apprehended
Murder and carnage	-4	Investigate

**Check:** This result means the Travellers' travel documents and identities are checked, either by a police officer or guard, or by electronically by querying the Travellers' comms. A successful Admin or Streetwise check can allay suspicion but if it is failed, the planetary authorities move on to Investigation.

**Investigate:** This results in a detective or bureaucrat probing deeper into the Travellers' backgrounds. If the Travellers have a ship, it will be searched. They may be followed or have their communications tapped. They may also be questioned closely.

**Apprehended:** The police show up ready for a fight. Their response will generally be proportional to the threat posed by the Travellers; if the Travellers are just making trouble in a bar, then most police forces will just use batons, stunners, tranq gas and other non-lethal weapons. On the other hand, if the Travellers are in battle dress and firing PGMPs at the palace of the planetary duke, then the police will show up with the best weapons and armour available at the planet's Tech Level (or even a few levels higher), possibly with the army not far behind them.

Travellers arrested for a crime will face punishment, determined by rolling 2D+DMs on the Sentencing table.

For crimes involving smuggling banned goods, the DM is equal to the difference between the planet's Law Level and the banned goods in question (for example, laser weapons are banned at Law Level 2, so a Traveller found with a laser weapon on a Law Level 6 world would have DM+4 to his roll on the Sentencing table).

Other crimes have a set DM.



Crime	DM
Assault	Law Level -5
Destruction of Property	Law Level -3
False Identity	Law Level -2
Manslaughter	Law Level -1
Murder	Law Level +0

A Traveller with the Advocate skill may attempt to reduce the severity of sentencing by making a check. If successful, reduce the Sentencing DM by the Effect of the check.

## Sentencing

2D+DM	Sentence
0 or less	Dismissed or trivial
1-2	Fine of 1D x Cr1000 (per ton of cargo)
3-4	Fine of 2D x Cr5000 (per ton of cargo)
5-6	Exile or a fine of 2D x Cr10,000 (per ton of cargo)
7-8	Imprisonment for 1D months or exile or fine of 2D x Cr20,000 (per ton of cargo)
9-10	Imprisonment for 1D years or exile
11-12	Imprisonment for 2D years or exile
13-14	Life imprisonment
15 or more	Death

A result of Exile means the Traveller must leave the planet immediately and never return.

## Starport Facilities

Class	Quality	Berthing Cost	Fuel	Facilities	Bases
A	Excellent	1D x Cr1000	Refined	Shipyards (all) Repair	Naval 8+ Scout 10+ Research 8+ TAS
B	Good	1D x Cr500	Refined	Shipyards (spacecraft) Repair	Naval 8+ Scout 8+ Research 10+ TAS
C	Routine	1D x Cr100	Unrefined	Shipyards (small craft) Repair	Scout 8+ Research 10+ TAS 10+
D	Poor	1D x Cr10	Unrefined	Limited Repair	Scout 7+
E	Frontier	0	None	None	None
X	No Starport	0	None	None	None

## STARPORT

Starports are the arteries of interstellar commerce. These ports for spacefaring craft range in size from a landing field with a rudimentary radio beacon and a hydrogen fuel still, to city-sized edifices where tens of thousands of ships land daily. Most planets have only a Downport, a landing zone on the ground accessible only by entering the atmosphere. Ships that cannot land at a Downport are serviced by a fleet of shuttles and other smaller vessels. Worlds advanced or rich enough may possess a Highport, an orbiting starport. Some are equipped with space elevators or even gravitic lifts connecting Highport to Downport.

Starports are classed from A to E. To determine the level of a starport on a planet, roll 2D and apply these DMs.

## Starport Class

2D+DM	Port Class
2 or less	X
3	E
4	E
5	D
6	D
7	C
8	C
9	B
10	B
11+	A

DM+1 if the planet's Population is 8+  
DM+2 if the planet's Population is 10+  
DM-1 if the planet's Population is 4-  
DM-2 if the planet's Population is 2-



**Quality:** This determines both the condition of the port itself, and the level of competence of the staff. Quality may vary – it is possible to find a class D port run by expert engineers or a class A that has succumbed to decay. Some worlds have entirely inappropriate starports; a world that was once a centre of commerce, but has now been bypassed by new trade routes might have a cavernous port capable of handling thousands of freighters, but is now almost abandoned.

A frontier installation is just a bare spot of bedrock, marked with a beacon, and is a starport in the most technical sense only.

**Berthing Cost:** This is the price paid by any ship that wants to land or dock at the starport. Prices can vary wildly between starports but tend to remain stable at each (roll once for each starport and record it for future reference).

**Fuel:** This refers to the fuel available for purchase – either refined or unrefined. Refined fuel costs Cr500 per ton; unrefined fuel costs Cr100 per ton, but is risky to use when jumping. Bases have their own fuel-refining ability – see Bases, below.

**Facilities:** These are the starport's repair and construction ability. A shipyard allows for the construction of new vessels. A shipyard capable of building all types of ships can construct small craft (less than 100 tons), spacecraft (100 to 5,000 tons) and capital ships (more than 5,000 tons). However only a class A starport can construct jump-capable spacecraft.

Repair facilities allow a damaged ship to be repaired, and have plenty of spare parts for most common systems.

Limited repair facilities can only fix Hull damage.

**Bases:** This lists what sort of bases may be present. Roll 2D for each base type listed; for more details, see Bases opposite.

## TECH LEVEL

The Tech Level of the planet is determined by rolling 1D and adding DMs from the Tech Level table opposite.

The Tech Level measures the average technology presence on the planet, and gives an idea of local production and repair capability. Trade with offworlders may bring in advanced technology; on average, a rich individual can afford technology two or more levels higher than the planetary average. The government may also have access to higher-technology items.

A planet's technology may be one or more levels higher or lower in a particular field, such as Medicine, Communications, Weaponry, Ship Construction, Power Generation, Computers and so forth.



## Third Imperium: Starports and the Law

Technically, a starport is Imperial territory and not under the jurisdiction of the planetary government. The local government may share in the construction costs, running costs and profits of the starport, but the port is extraterritorial and run by an Imperium-appointed governor. This means that Travellers can carry locally illegal goods onto a planet so long as they do not leave the starport. It also means that criminals and refugees often claim sanctuary in a starport, and that a starport's Tech Level may be considerably higher than that of the rest of the planet. Starports operate according to Imperial Law (equivalent to Law Level 1 for most items, and forbidding all use of psionics).

However, Travellers should be aware that not every world honours this approach and paranoid governments have even been known to forcibly board and inspect ships to root out what they see as unpleasant influences.



## Communications

If the planet is below Tech Level 3, then there will be no telecommunication system whatsoever except for whatever facilities the starport offers. If it is between TL4 and TL6, then it has radio and telephone communications between major cities at least, but no satellite facilities. From TL7 onwards, the planet has a progressively more advanced communications grid. At TL9, it is accessible from every point of the surface (communications satellites are cheap and easy to deploy).

## Environmental Limits

Certain Atmospheres require a minimal Tech Level. A world can have a Tech Level lower than this limit, but the population cannot maintain or repair their life support systems and are likely doomed.

## Tech Level and Environment

Atmosphere	Minimum Tech Level
0 or 1	8
2 or 3	5
4, 7 or 9	3
10 (A)	8
11 (B)	9
12 (C)	10
13 or 14 (D or E)	5
15 (F)	8



## Tech Level

Score	Starport	Size	Atmosphere	Hydrographics	Population	Government
0		+2	+1	+1		+1
1		+2	+1		+1	
2		+1	+1		+1	
3		+1	+1		+1	
4		+1			+1	
5					+1	+1
6						
7						+2
8					+1	
9				+1	+2	
10 (A)	+6		+1	+2	+4	
11 (B)	+4		+1			
12 (C)	+2		+1			
13 (D)			+1			-2
14 (E)			+1			-2
15 (F)			+1			
X	-4					

## BASES

In addition to the basic facilities at a starport, there may be one or more special bases at the starport or nearby in the system. There are four common types of bases, but others are also possible, such as prison facilities, naval shipyards, alien embassies or consulates and other secret operations.

**Naval:** A naval base is a supply depot, refuelling station, repair yard or fortress of either the Imperial Navy or the local sector navy. Naval vessels can obtain refined fuel and supplies here. Naval bases are always guarded by armed vessels and fixed defence. Ex-Naval Travellers may meet Contacts or Allies here, and mercenary Travellers can try to pick up work. Naval bases also have an advanced hospital, although it is normally available only to naval personnel. Travellers may also be able to purchase navy-surplus weapons here.

**Scout:** A scout base offers refined fuel and supplies to scout ships (including retired scout ships obtained by retired scouts). They are also an excellent place to pick up rumours and news.

**TAS:** This is a Traveller's Aid Society Hostel, where Travellers with TAS membership and their guests can stay. In the Third Imperium TAS Hostels offer medical facilities for members, as well as supplies and luxuries not normally available on most worlds. TAS Hostels are a good source of rumours and passengers.

**Research:** A Research base is dedicated to a particular field of research. The base might be a weapons testing facility, or a solar observatory, or part of a secret Imperial project. A research base may have Contacts or Allies of Travellers who followed a Scholar career. Such bases may have advanced medical facilities.

## TRAVEL CODES

There are two travel codes – Amber and Red. An Amber world has been deemed dangerous by the Imperium, and Travellers are warned to be on their guard. Amber worlds are often undergoing upheaval or revolution, or else are naturally hazardous environments.

Red worlds are interdicted, and travel to them is forbidden. A world might be Red because the Imperium wishes to preserve it, or because the world is too dangerous to allow visitors. Interdictions are enforced by the Imperial Navy.

A world with an Atmosphere of 10+, a Government of 0, 7 or 10, and a Law Level of 0 or 9+ should be considered for Amber status. Red codes are given out at the discretion of the referee.

## TRADE CODES

Trade codes designate particular types of worlds, and the types of goods that are likely to be found there. If a world meets all the requirements listed for one or more trade codes, it gains those trade classifications. Trade codes are used extensively in the Trade chapter.



**Agricultural:** Dedicated to farming and food production. Often, they are divided into vast semi-feudal estates.

**Asteroids:** Usually mining colonies, but can also be orbital factories or colonies.

**Barren:** Uncolonised and empty.

**Desert:** Dry and barely habitable.

**Fluid Oceans:** Worlds where the surface liquid is something other than water, and so are incompatible with Earth-derived life.

**Garden:** Worlds that are Earth-like.

**High Population:** A population in the billions.

**High Tech:** Among the most technologically advanced in Charted Space.

**Ice-Capped:** Worlds that have most of their surface liquid frozen in polar ice caps, and are cold and dry.

**Industrial:** Dominated by factories and cities.

**Low Population:** A population of only a few thousand or less.

**Low Tech:** Pre-industrial and cannot produce advanced goods.

**Non-Agricultural:** Too dry or barren to support their populations using conventional food production.

**Non-Industrial:** Too low in population to maintain an extensive industrial base.

**Poor:** Lacking resources, viable land or sufficient population to be anything other than marginal colonies.

**Rich:** Blessed with a stable government and viable biosphere, making them economic powerhouses.

**Water World:** Almost entirely water-ocean across their surface.

**Vacuum:** No atmosphere.

## Trade Codes

Classification	Code	Planet Size	Atmosphere	Hydro	Population	Government	Law Level	Tech Level
Agricultural	Ag		4-9	4-8	5-7			
Asteroid	As	0	0	0				
Barren	Ba				0	0	0	
Desert	De		2+	0				
Fluid Oceans	Fl		10+	1+				
Garden	Ga	6-8	5,6,8	5-7				
High Population	Hi				9+			
High Tech	Ht							12+
Ice-Capped	Ic		0-1	1+				
Industrial	In		0-2, 4, 7, 9		9+			
Low Population	Lo				3-			
Low Tech	Lt							5-
Non-Agricultural	Na		0-3	0-3	6+			
Non-Industrial	NI				0-6			
Poor	Po		2-5	0-3				
Rich	Ri		6,8		6-8	4-9		
Vacuum	Va		0					
Water World	Wa			10+				