TRAVELLER SRD

Foreword

This is the Traveller SRD v1.0 that can be found on the Mongoose Website. I made some small changes (mainly layout-related) to the document. If you want to make a translation or use the SRD to create your own content, it might be better to use the original document, though. The changes are:

• additional headings to give the document more structure;
• layout-related changes to tables, including additional headings;
• correction of errors.

If you have any questions, complaints or spotted any errors, please contact vokanix@gmx.de.
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TRAVELLER

DIE ROLL CONVENTIONS

Check (or Throw): To determine if a character succeeds or fails at a particular task, the player must make a check. To make a check, the player rolls 2d6 and adds any appropriate Dice Modifiers (such as a skill his character possesses, or a bonus from a piece of equipment). If the total is equal to or greater than the target number for that check, he succeeds. A check will usually have a skill or characteristic associated with it. For example, a check of 'Dex 8+' means 'roll 2d6, add your Dexterity Characteristic Modifier, and you succeed if you have a total result of 8 or more'.

Target Numbers: In many checks, the player needs to roll equal to or above a specific number (usually, eight or more). This is denoted by a number followed by a plus, such as 8+ or 10+.

Dice Modifier (abbreviated to DM): A number to be applied to a die roll before it is used. Dice Modifiers are preceded by a sign, which indicates if the number is to be added to or subtracted from the roll. For example, a Dice Modifier of –2 indicates that two is to be subtracted from the roll; a Die Modifier of +4 indicates that four is to be added to the roll.

TECHNOLOGY LEVELS

Technology Levels measure the scientific capacity of a world and the complexity and effectiveness of a piece of equipment.

Technology Levels Table

TL	Category	Available Technology
0	Primitive	No technology.
1	Primitive	Roughly on a par with Bronze or Iron age technology.
2	Primitive	Renaissance technology.
3	Primitive	The advances of TL 2 are now applied, bringing the germ of industrial revolution and steam power.
4	Industrial	The transition to industrial revolution is complete, bringing plastics, radio and other such inventions.
5	Industrial	TL 5 brings widespread electrification, tele-communications and internal combustion.
6	Industrial	TL 6 brings the development of fission power and more advanced computing.
7	Pre-Stellar	A pre-stellar society can reach orbit reliably and has telecommunications satellites.
8	Pre-Stellar	At TL 8, it is possible to reach other worlds in the same system, although terraforming or full colonisation are not within the culture's capacity.
9	Pre-Stellar	The defining element of TL 9 is the development of gravity manipulation, which makes space travel vastly safer and faster.
10	Early Stellar	With the advent of Jump, nearby systems are opened up.
11	Early Stellar	The first true artificial intelligences become possible, as computers are able to model synaptic networks.
12	Average Stellar	Weather control revolutionises terraforming and agriculture.
13	Average Stellar	The battle dress appears on the battlefield in response to the new weapons.
14	Average Stellar	Fusion weapons become man-portable.
15	High Stellar	Black globe generators suggest a new direction for defensive technologies, while the development of synthetic anagathics means that the human lifespan is now vastly increased.

Higher Technology Levels exist and may appear in other settings or be discovered by pioneering scientists.

CHARACTER CREATION

CHARACTERISTICS

Every person and creature in Traveller has several characteristics that describe their base mental and physical potential.

Strength (Str): A character's physical strength, fitness and forcefulness.

Dexterity (Dex): Physical co-ordination and agility, reflexes.

Endurance (End): A character's ability to sustain damage, stamina and determination.

Intelligence (Int): A character's intellect and quickness of mind.

Education (Edu): A measure of a character's learning and experience.

Social Standing (Soc): A character's place in society.

SKILLS

If a character has no level in a skill, then he is untrained and will suffer a –3 Dice Modifier when trying to use that skill.

If a character has zero level in a skill (Skill 0), then he is competent in using that skill, but has little experience. He does not get any bonus from his skill ranks when using that skill but at least he avoids the penalty for being untrained.

If a character has one or more level in a skill (Level 1, Level 2, and so on) then he is trained in that skill. Each rank represents several years of experience using that skill. A character with Level 2–3 in a skill is a skilled professional in that field.

Some skills have specialities – specialised forms of that skill. A character picks a speciality when he gains level 1 in a skill with specialities. For example, a character might have Engineer 0, allowing him to make any Engineer skill checks without an unskilled penalty. He might then gain a level in Engineer, giving him Engineer (Jump drives) 1. He would make all Engineer checks involving Jump drives at a +1 DM, but would make all other Engineer checks at a +0 DM. A character can have multiple specialities in a skill – an engineer might have Engineer (Jump drives) 1 and Engineer (power plant) 2. He would make checks related to Jump drives with a +1 DM, checks related to power plants with a +2 DM and all other Engineer checks with a +0 DM.

Background Skills

Before embarking on your careers, you get a number of background skills equal to 3 + your Education DM (1 to 5, depending on your Education score).

Homeworld: Growing up on your homeworld gave you skills that depend on the planet's nature. You can select any skill that matches your homeworld's planetary description and trade codes. If you came from a planet already established, then consult those sources for the planet's description.

Homeworld	Background Skill
Agricultural	Animals 0
Asteroid	Zero-G 0
Desert	Survival 0
Fluid Oceans	Seafarer 0
Garden	Animals 0
High Technology	Computers 0
High Population	Streetwise 0
Ice-Capped	Vacc Suit 0
Industrial	Trade 0
Low Technology	Survival 0
Poor	Animals 0
Rich	Carouse 0
Water World	Seafarer 0
Vacuum	Vacc Suit 0

Education: A formal education gives you a basic level of competence in various sciences and academic disciplines. Any character may choose from the following list:

Admin 0, Advocate 0, Art 0, Carouse 0, Comms 0, Computer 0, Drive 0, Engineer 0, Language 0, Medic 0, Physical Science 0, Life Science 0, Social Science 0, Space Science 0, Trade 0.

CAREERS

At many points during a career, a character will have to make a throw of some sort. Most of these throws are characteristic throws – roll 2d6, add the DM from the listed characteristic, and try to get a total higher than the listed value. A throw of Int 8+ means 'roll 2d6, add your Intelligence DM, and you succeed if you roll an 8 or more'. A few throws are skill checks, where you add any levels in that skill and the DM from an appropriate characteristic. For example, a throw of Gunnery 8+ would mean 'roll 2d6, add your Gunnery skill and the DM from an appropriate characteristic such as Dexterity, and get over 8'.

Career Format

Qualification: What you need to roll to enter that career. Military careers use Enlistment as the description for this roll instead of qualification. If you fail this check then you cannot enter your chosen career this term. You must either submit to the Draft or take the Drifter career for this term. You suffer a –1 DM to qualification rolls for each previous career you have entered. Once you leave a career you cannot return to it. The Draft and the Drifter career are exceptions to this rule – you can be Drafted into a career you were previously in but got ejected from and the Drifter career is always open.

Skills and Training: Each career has skill tables associated with it – Personal Development, Service Skills, Specialist Skills and Advanced Education. In each term you spend in a career, pick one of these tables and roll 1d6 to see which skill you increase. You may only roll on Advanced Skills if your character has the listed qualification (usually Education 8+ or a certain Rank). You may only roll on the Officer Skills if your career has one and if you have received a commission.

Skills can be listed with or without an associated level. If no rank is listed, then you gain that skill at Level 1 if you do not have it already, or increases its level by one if you are already trained in that field. If a rank is listed, then you gain the skill at that level as long as it is better than your current level in that skill.

Basic Training: For your first career only, you get all the skills listed in the Service Skills table at Level 0 as your basic training. For any subsequent careers, you may pick any one skill listed in the Service Skills table at Level 0 as your basic training.

Survival: Each career has a survival roll. If you fail this roll, roll on the mishap table. This mishap is always enough to force you to leave the service. You lose the benefit roll for the current term only. A natural 2 is always a failure.

Events: If you are still in your career after resolving the survival roll, roll on the events table to see what interesting things befall you this term.

Commission: This only applies to the military careers of Army, Navy and Marines. A character who succeeds at a commission roll becomes a Rank 1 officer in that career, and uses the officer Rank table from then on. A character may attempt a commission roll once per term, and trying for commission is optional.

If you obtain a commission after having already advanced several ranks, you become a Rank 1 officer as normal but you may add your two final ranks together for the purposes of determining benefits and pensions.

Some events give a bonus DM to advancement rolls, or give automatic advancement. You can apply these DMs to commission rolls also.

Advancement: Each career has an advancement roll.

If you make a successful Advancement roll, then you move to the next rank and gain an extra roll on any of the Skills and Training Tables for this career. You also get any benefits listed for your new rank. You may only attempt to advance once per term.

If your result is equal to or less than the number of terms you have spent in this career, then you cannot continue in this career after this term. Either your services are no longer required, or events have caused you to leave, or perhaps you are simply bored and want a new challenge.

If you roll a natural 12, then you must continue in this career.

Ranks and Benefits: You start at Rank 0 in your career. Each time you succeed at an advancement check, you move onto the next Rank.

Some ranks have benefits associated with them, such as extra skills or more benefits. You gain these benefits as soon as you attain that rank.

Mustering-Out Benefits: When you leave a career for any reason, you gain material benefits from that career. There are two tables – Cash and Benefits. You may only roll on the cash tables a maximum of three times, regardless of how many careers or benefit rolls you have. You get one benefit roll per full term served. Leaving due to a mishap means you lose the benefit roll for that term, but not previous full terms in that career.

If you reached rank 1 or 2, you get an extra benefit roll when leaving that service. If you reached rank 3 or 4, you get two extra benefit rolls, and if you reached rank 5 or 6, you get three extra benefit rolls and may apply a +1 to rolls on the Benefits table that you gain from that career.

SAMPLE CAREER: SCOUT

Enlistment: Int 5+

- –1 DM for every previous career.

Assignments: Choose one of the following:

- Courier
- Survey
- Exploration

Ranks and Skills

Rank	Title	Skill or Benefit
0		
1	Scout	Vacc Suit 1
2		
3	Senior Scout	Pilot 1
4		
5		
6		

Skills and Training

Roll	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Str	Pilot (spacecraft or small craft)	Medic
2	+1 Dex	Survival	Navigation
3	+1 End	Mechanic	Engineer (any)
4	+1 Int	Astrogation	Computer
5	+1 Edu	Comms	Space Science (any)
6	Jack of all Trades	Gun Combat (any)	Jack of all Trades

Roll	Specialist: Courier	Specialist: Survey	Specialist: Exploration
1	Comms	Sensors	Sensors
2	Sensors	Persuade	Pilot (spacecraft)
3	Pilot (spacecraft)	Pilot (small craft)	Pilot (small craft)
4	Vacc Suit	Navigation	Life Science (any)
5	Zero-G	Diplomat	Stealth
6	Astrogation	Streetwise	Recon

Mishaps

Roll 1d6	Mishap
1	Severely injured in action. (This is the same as a result of 2 on the Injury table.) Alternatively, roll twice on the Injury table (page 37) and take the lower result.
2	Psychologically damaged by your time in the scouts. Reduce your Intelligence or Social Standing by 1.
3	Your ship is damaged, and you have to hitch-hike your way back across the stars to the nearest scout base. Gain 1d6 Contacts and 1d3 Enemies.
4	You inadvertently cause a conflict between the Imperium and a minor world or race. Gain a Rival and Diplomat 1.
5	You have no idea what happened to you – they found your ship drifting on the fringes of friendly space.
6	Injured. Roll on the Injury table.

Events

Roll 2d6	Event
2	Disaster! Roll on the mishap table, but you are not ejected from this career.
3	Your ship is ambushed by enemy vessels. Either run, and throw Pilot 8+ to escape, or treat with them and throw Persuade 10+ to bargain with them. If you fail the check, then your ship is destroyed and you may not re-enlist in the Scouts at the end of this term. If you succeed, you survive and gain Sensors 1. Either way, gain an Enemy.
4	You survey an alien world. Gain one of Animals (riding or training) 1, Survival 1, Recon 1 or Life Science (any) 1
5	You perform an exemplary service for the scouts. Gain a +1 DM to any one Benefit roll.
6	You spend several years jumping from world to world in your scout ship. Gain one of Astrogation 1, Navigation 1, Pilot (small craft) 1 or Mechanic 1.
7	Life Event. Roll on the Life Events table (page 34).
8	When dealing with an alien race, you have an opportunity to gather extra intelligence about them. Roll either Sensors 8+ or Deception 8+. If you succeed, gain an Ally in the Imperium and a +2 DM to your next Advancement roll. If you fail, roll on the Mishap table, but you are not ejected from this career.
9	Your scout ship is one of the first on the scene to rescue the survivors of a disaster. Roll either Medic 8+ or Engineer 8+. If you succeed, gain a Contact and a +2 DM to your next Advancement check. If you fail, gain an Enemy.
10	You spend a great deal of time on the fringes of known space. Roll Survival 8+ or Pilot 8+. If you succeed, gain a Contact in an alien race and one level in any skill of your choice. If you fail, roll on the Mishap table.
11	You serve as the courier for an important message from the Imperium. Either gain one level of Diplomat, or take a +4 DM to your next Advancement roll.
12	You discover a world, item or information of worth to the Imperium. You are automatically promoted.

DRIFTERS AND THE DRAFT

You may attempt to enlist in one career each term if you are not continuing on in an existing career. If you fail to for a new career, you have two options. You can apply to the Draft and be randomly sent to one of the military services or you may spend that term travelling through known space as a Drifter without a career or purpose. A character may only enter the Draft once.

Draft Table

1d6	Career (speciality)
1	Navy (any)
2	Army (any)
3	Marines (any)
4	Merchants (merchant marine)
5	Scouts (any)
6	Agent (law enforcement)

LIFE EVENTS

If you roll a Life Event on the Events table for your career, roll on the Life Events table.

MUSTERING OUT BENEFITS

Benefits are gained when a character leaves a career for any reason other than failing a survival roll.

You may only roll on the Cash table a maximum of three times no matter how many careers you have had.

Cash Benefits

A character with the Gambler skill at level 1 or better gets a +1 DM to all rolls on the Cash table.

If the character has any money after rolling on the Cash table then he may purchase personal equipment worth up to 2,000 credits immediately.

Other Benefits

When you leave a career in good standing with your previous employers, you are permitted to keep various pieces of equipment or even shares of a vessel.

Retirement Pay

A character that leaves a service at the end of the 5th or later term of service may receive retirement pay.

Terms	Pay
5	Cr. 10,000
6	Cr. 12,000
7	Cr. 14,000
8	Cr. 16,000
9+	+2,000 per term beyond 8

AGEING

The effects of ageing begin when a character reaches 34 years of age. At the end of the fourth term, and at the end of every term thereafter, the character must roll 2d6 on the Ageing Table. Apply the character's total number of terms as a negative Dice Modifier on this table.

Ageing Table

2d6	Effects of Aging
–6	Reduce three physical characteristics by 2, reduce one mental characteristic by 1
–5	Reduce three physical characteristics by 2.
–4	Reduce two physical characteristics by 2, reduce one physical characteristic by 1
–3	Reduce one physical characteristic by 2, reduce two physical characteristics by 1
–2	Reduce three physical characteristics by 1
–1	Reduce two physical characteristics by 1
0	Reduce one physical characteristic by 1
1+	No effect

Ageing Crisis: If any characteristic is reduced to 0 by ageing, then the character suffers an ageing crisis. The character dies unless he can pay 1d6×10,000 credits for medical care, which will bring any characteristics back up to 1. The character automatically fails any Qualification checks from now on – he must either continue in the career he is in or become a Drifter if he wishes to take any more terms.

Anagathics: While using anagathic drugs, the character effectively does not age – add the number of terms since the character started taking anagathics as a positive Dice Modifier to rolls on the ageing table. If a character stops taking anagathics, then he must roll immediately on the ageing table to simulate the shock that comes from his system beginning to age again.

The risk of trying to obtain a reliable supply and the disruption to the character's biochemistry means the character must make a second Survival check if he passes his first Survival check in a term. If either check is failed, the character suffers a mishap and is ejected from the career.

The drugs cost 1d6×2,500 Credits for each term that the character uses the drugs. These costs are paid out of the character's eventual mustering-out cash benefits. If the character cannot pay these bills, he goes into debt.

INJURIES

Characters that are wounded in combat or accidents during character creation must roll on the Injury table.

Injury Crisis: If any characteristic is reduced to 0, then the character suffers an injury crisis. The character dies unless he can pay 1d6×10,000 credits for medical care, which will bring any characteristics back up to 1. The character automatically fails any Qualification checks from now on – he must either continue in the career he is in or become a Drifter if he wishes to take any more terms.

Medical Care: If your character has been injured, then medical care may be able to undo the effects of damage. The restoration of a lost characteristic costs 5,000 Credits per point.

Injury Table

1d6	Injury
1	Nearly killed. Reduce one physical characteristic by 1d6, reduce both other physical characteristics by 2 (or one of them by 4).
2	Severely injured. Reduce one physical characteristic by 1d6.
3	Missing eye or limb. Reduce Strength or Dexterity by 2.
4	Scarred. You are scarred and injured. Reduce any one physical characteristic by 2.
5	Injured. Reduce any physical characteristic by 1.
6	Lightly injured. No permanent effect.

If your character was injured in the service of a patron or organisation, then a portion of his medical care may be paid for by that patron. Roll 2d6 on the table below, adding your Rank as a DM. The result is how much of his medical care is paid for by his employer.

Medical Bills

Career	Roll of		
	4+	8+	12+
Army/Navy/Marines	75%	100%	100%
Agent/Nobility/Scholar/ Entertainer/Merchant/Citizen	50%	75%	100%
Scout/Rogue/Drifter	0%	50%	75%

Medical Debt

During finishing touches, you must pay any outstanding costs from medical care or anagathic drugs out of your Benefits before anything else.

FINALISE CONNECTIONS

The connections between characters rule can give you bonus skills. At this stage, you may make (or finalise) a connection between your character and up to two other player characters. For each connection you make, you may gain one level in any skill, but you cannot bring a skill above level 3 using this rule nor may you take the Jack of all Trades skill.

SKILL PACKAGES

As a group, select one of the following skill packages.

Traveller Skill Package: Pilot (any) 1, Sensors 1, Comms 1, Gunner (any) 1, Gun Combat (any) 1, Persuade 1, Stealth 1, Medic 1.

Mercenary Skill Package: Sensors 1, Comms 1, Medic 1, Leadership 1, Heavy Weapons (any) 1, Gun Combat (any) 1, Gun Combat (any) 1, Stealth 1.

Trader Skill Package: Pilot (any) 1, Sensors 1, Medic 1, Streetwise 1, Broker 1, Advocate 1, Diplomat 1, Astrogation 1.

Starship Skills Package: Pilot (any) 1, Gunner (any) 1, Engineer (any) 1, Mechanic 1, Sensors 1, Medic 1, Comms 1, Astrogation 1.

Explorer Skills Package: Pilot (any) 1, Astrogation 1, Sensors 1, Survival 1, Recon 1, Gun Combat (any) 1, Stealth 1, Medic 1

Diplomat Skill Package: Advocate 1, Diplomat 1, Persuade 1, Stealth 1, Streetwise 1, Deception 1, Computers 1, Comms 1.

Investigator Skill Package: Advocate 1, Admin 1, Investigate 1, Persuade 1, Stealth 1, Streetwise 1, Computers 1, Sensors 1, Gun Combat (any) 1

Criminal Skill Package: Pilot (any) 1, Sensors 1, Stealth 1, Deception 1, Persuade 1, Streetwise 1, Broker 1, Medic 1.

ALIENS

Alien species may have different criteria for Social Standing: Caste or Charisma. When dealing with a race that has a different concept of Social Standing, all DMs from Social Standing or its alien equivalent – whether positive or negative – are halved.

In addition to their characteristics, aliens may have one or more alien traits.

Armoured: The alien possess thick fur, scales, a bony exoskeleton or other natural protection that gives it one point of natural armour.

Aquatic: The alien is adapted to life underwater. It can breathe underwater, or hold its breath for a long period (Endurance×10 minutes on average). If amphibious, its Dexterity is halved on land. If the species is not amphibious, then it cannot operate out of water without mechanical aid or telepresence.

Atmospheric Requirements: The species requires an unusual combination of gasses to breathe, and cannot survive in most atmospheres without artificial aid.

Engineered: The species has been altered by some external factor to adapt to changed circumstances or a different environment. Medical treatment of Engineered species by a facility of a lower Technology Level than that at which the species was created receives a negative DM equal to the difference.

Fast Metabolism: Creatures with a fast metabolism require more food than most species, and their life support costs are doubled. In combat, fast-metabolism creatures gain a +2 initiative bonus. Fast-metabolism creatures halve their Endurance for the purposes of determining fatigue.

Feral: Feral species are uncivilised, regardless of their technological knowledge. Feral species roll Education on 1d6 only.

Flyer: The species can fly using wings, glider membranes, gasbags or other means. Characters of this species gain the Athletics (flying) skill at Level 0 and can travel at a speed noted in their description. Flying creatures who are aloft must spend one minor action every round on movement or stall and fall out of the air.

• Winged flight is tiring and can only be sustained for a number of rounds equal to the creature's Endurance before requiring a like amount of rest. Some spe-

cialised avians can increase this to minutes or even hours equal to Endurance.

- Species with glider membranes cannot gain altitude while flying. They descend one metre every time they move forwards and cannot use more than one minor action for flying movement in a round.
- Species that float using gasbags or some other method do not need to move to remain aloft.

Large: The species is considerably larger than the average for sophonts. Large creatures generally have a Strength and Endurance of 3d6 or even 4d6, and a Dexterity of 1d6. Life support requirements for Large creatures are doubled.

Some Large creatures are described as Huge. Attacks against Huge creatures receive a +1 DM to hit.

Natural Weapon: The species has a natural weapon, such as claws, a strong bite or a poisonous stinger. Such weapons are usable at Personal range and deal +1 damage. The creature gains Melee (natural weapons) at level 0.

No Fine Manipulators: The species has no fingers or other prehensile appendages, preventing them from easily picking things up, pushing small buttons, reaching into tight spaces, and so on.

Notable (Characteristic): Some species are notably dextrous, intelligent, tough or strong. Characters from such races have a positive Dice Modifier when rolling for that characteristic (+2 unless otherwise specified), and their racial maximum for that characteristic is increased by the same amount.

Psionic: All members of the species are Psionic, and may determine their Psionic Strength and talents at the start of character generation.

Small: Small species generally have a Strength and Endurance of only 1d6, and a Dexterity of 3d6. The minimum size for a sophont is about half that of a human,

Some Small creatures are described as Tiny. Attacks against Tiny creatures receive a –1 DM to hit.

Slow Metabolism: Creatures with a slow metabolism require less food than most species, and their life support costs are halved. In combat, slow-metabolism creatures suffer a –2 initiative penalty.

Uplifted: This species was originally non-sentient, but has been raised to a higher intelligence by another species. Uplifted races generally become client species of their patron. Two common uplifted animals are apes and dolphins:

- Uplifted apes have Notable Strength and Endurance (+2) but all other characteristics are Weak (–2). They have the Uplifted trait.
- Uplifted dolphins have Notable Strength (+4) and Notable Endurance (+2) but Weak Intelligence, Education and Social Standing (–2). They have the Uplifted, Aquatic (fully aquatic, air-breathers) and No Fine Manipulators traits.

Weak (Characteristic): The opposite of Notable (Characteristic), some species are weaker, less resilient or less well educated than others. Characters from such races have a negative Dice Modifier when rolling for that characteristic (–2 unless otherwise specified), and their racial maximum for that characteristic is decreased by the same amount.

SKILLS AND TASKS

The Referee should only call for checks:

- when the characters are in danger.
- when the task is especially difficult or hazardous.
- when the characters are under the pressure of time.
- when success or failure is especially important or interesting.

TASK CHECKS

To make a check, the player rolls 2d6 and any appropriate Dice Modifiers. If the total is 8 or more, the character succeeds.

The most common forms of task checks are characteristic checks and skill checks.

Characteristic Check: These checks are used when the task is one not covered by an obvious skill, or where the character's innate abilities are the most important influence on the result. To make a Characteristic check, roll 2d6 and add the appropriate characteristic Dice Modifier.

Skill Check: For a skill check, the character adds both his skill level and an appropriate characteristic DM.

When making a skill check, if a character does not have any levels in that skill, then he suffers a –3 unskilled Dice Modifier.

Task Difficulties
- Simple tasks have a difficulty DM of +6.
- Easy tasks have a DM of +4.
- Routine tasks have a difficulty DM of +2.
- Average tasks have a difficulty DM of +0.
- Difficult tasks have a difficulty DM of –2.
- Very difficult tasks have a DM of –4.
- Formidable tasks have a difficulty DM of –6.

Situational Modifiers
If a character has help, such as good tools, competent aids or other beneficial circumstances, he receives a +1 DM to his skill check.

Effect
If the degree of success is important, then subtract 8 from the total of the dice roll plus Dice Modifiers. This margin of success is referred to as the Effect.

Success

Effect Total	Success
0	*Marginal Success:* The character barely succeeds at the task, and may have to accept a condition on his success. He fixes the engine but it will overheat. He finds a buyer for the goods but the buyer is a untrustworthy criminal.
1–5	*Average Success:* The character succeeds normally.
6+	*Exceptional Success:* The character succeeds in an impressive and elegant fashion.

Failure

Effect Total	Failure
Less than –6	*Exceptional Failure:* The character failed as completely as it is possibly to fail. Anything that can go wrong goes wrong. If attempting to repair a device, the device is further damaged or even destroyed. In a social situation, the character gets into further trouble.
–2 to –5	*Average Failure:* The character has failed the task.
–1	*Marginal Failure:* The character has almost, almost succeeded, and the Referee may permit him to scrape a success if he takes a significant consequence. A character trying to jump across a chasm hangs onto the far side by his fingernails but can only pull himself up if he drops his backpack. A character trying to land a ship can bring it down safely but the ship may never fly again. A character hacking a computer gets in but the security programs can trace his location.

Timing
To determine how long a task takes, roll 1d6 and multiply it by the increment listed for that action.

Going Faster or Slower

You can choose, before you roll, to move up or down one or two rows on the Time Frames table. Moving up (reducing the time increment) gives you a –1 DM for every row you move; moving down and increasing the time taken gives you a +1 DM for every row you move.

Multiple Actions

A character can try to do two or more things at once, like firing a spacecraft's weapons while also flying, or disarming a bomb while hiding from guards. For every extra thing that the character is doing, he suffers a –2 DM to all skill checks.

Opposed Checks

If two characters are opposing each other directly in a task, then the character who obtains the highest Effect wins.

Aiding Another Character

The result of one check can give a DM to the next.

Task Chain DMs

The Previous Check	DM to Current Check
Failed With Effect –6 or less	–3
Failed With Effect –2 to –5	–2
Failed With Effect –1	–1
Succeeded With Effect 0	+0
Succeeded With Effect 1–5	+1
Succeeded With Effect 6+	+2

SKILLS

Admin

This skill covers bureaucracies and administration of all sorts, including the navigation of bureaucratic obstacles or disasters.

Advocate

Advocate gives a knowledge of common legal codes and practises, especially interstellar law.

Animals

This skill, rare on industrialised or technologically advanced worlds, is for the care of animals.

Specialities
- **Riding:** The character knows how to ride an animal who is trained to bear a rider.
- **Veterinary:** The character is trained in veterinary medicine and animal care.
- **Training:** The character knows how to tame and train animals.
- **Farming:** The character can grow and harvest crops and raise animals.

Athletics

The character is a trained athlete and is physically fit.

Specialities
- **Co-ordination:** Climbing, juggling, throwing.
- **Endurance:** Long-distance running, hiking.
- **Strength:** Feats of strength, weight-lifting.
- **Flying:** Species that fly gain this skill for free at level 0.

Art

The character is trained in a type of creative art.

Specialities
- **Acting:** The character is a trained actor, at home on the stage, screen or holo.
- **Dance:** The character is trained dancer and performer.
- **Holography:** Recording and producing aesthetically pleasing and clear holographic images.
- **Instrument:** Playing a particular musical instrument, such a flute, piano or organ.
- **Sculpting:** Making artistic or abstract sculptures in a variety of media.
- **Writing:** Composing inspiring or interesting pieces of text.

Astrogation

This skill is for plotting the courses of starships and calculating accurate jumps.

Battle Dress

This skill permits the character to operate advanced battle armour.

Broker

The Broker skill allows a character to negotiate trades and arrange fair deals.

Carouse

Carousing is the art of socialising; of having fun, but also ensuring that other people have fun, of infectious good humour.

Comms

The Comms skill covers the use of modern telecommunications – opening communications channels, querying computer networks, jamming signals and so on, as well as the proper protocols for communicating with starports and other spacecraft.

Computers

The Computers skill is for using and controlling computer systems.

Deception

Deception allows a character to lie fluently, disguise himself, perform sleight of hand and fool onlookers.

Diplomat

The Diplomat skill is for negotiating deals, establishing peaceful contact and smoothing over social faux pas.

Drive

This skill is for controlling ground vehicles of various types. There are several specialities.

Specialities
- **Mole:** For controlling vehicles that move through solid matter using drills or other earth-moving technologies, like plasma torches or cavitation.
- **Tracked:** For tanks and other vehicles that move on tracks.
- **Wheeled:** For automobiles and similar groundcars.

Engineer

The Engineer skill is used to operate and maintain spacecraft and advanced vehicles.

Specialities
- **Manoeuvre Drive (M-Drive):** Maintaining and operating a spacecraft's manoeuvre drive, as well as its artificial gravity.
- **Jump Drive (J-Drive):** Maintaining and operating a spacecraft's Jump drive.
- **Electronics:** All forms of computing hardware, sensors and other electronics and electrics.
- **Life Support:** Covers oxygen generators, heating and lighting and other necessary life support
- Power: Maintaining and operating a spacecraft's power plant.

Explosives

The Explosives skill covers the use of demolition charges and other explosive devices, including assembling or disarming bombs.

Flyer

The various specialities of this skill cover different types of flying vehicles.

Specialities
- **Grav:** This covers air/rafts and other vehicles that use gravitic technology. Grav vehicles have theoretically perfect manoeuvrability and can hover, but skill checks may be necessary when performing high-speed aerobatics.
- **Rotor:** For helicopters, hovercraft and other similar craft. Rotor craft can hover but may require skill checks to keep steady in the face of adverse environmental conditions.
- **Wing:** For jets and other aeroplanes using a lifting body. Winged aircraft must keep moving forwards or they will stall and fall out of the sky.

Gambler

The character is familiar with a wide variety of gambling games, such as poker, roulette, blackjack, horse-racing, sports betting and so on, and has an excellent grasp of statistics and probability.

Gunner

The various specialities of this skill deal with the operation of ship-mounted weapons in space combat.

Specialities
- **Turrets:** Operating turret-mounted weapons on board a ship.
- **Ortillery:** An abbreviation of Orbital artillery – using a ship's weapons for planetary bombardment or attacks on stationary targets.
- **Screens:** Activating and using a ship's energy screens like Black Globe generators or meson screens.
- **Capital Weapons:** Operating bay or spinal mount weapons on board a ship.

Gun Combat

The Gun Combat skill covers a variety of ranged weapons.

Specialities
- **Slug Rifle:** Using rifle weapons such as the autorifle or gauss rifle.
- **Slug Pistol:** Using pistols like the body pistol or snub pistol.
- **Shotgun:** Using shotguns.
- **Energy Rifle:** Using advanced energy weapons like laser rifles or plasma rifles.
- **Energy Pistol:** Using advanced pistol-style energy weapons like laser pistols and stunners.

Heavy Weapons

The Heavy Weapons skill covers man-portable and larger weapons that cause extreme property damage, such as rocket launchers, artillery and plasma weapons.

Specialities
- **Launchers:** Rocket launchers and grenade launchers.
- **Man Portable Artillery:** Man portable fusion and plasma weapons – the FGMP, PGMP and similar.
- **Field Artillery:** Fixed guns, mortars and other indirect-fire weapons.

Investigate

The Investigate skill incorporates keen observation, forensics, and detailed analysis.

Jack of All Trades

The Jack of All Trades skill works differently to other skills. It reduces the unskilled penalty a character receives for not having the appropriate skill by one for every level of Jack of All Trades.

Language

There are numerous different Language specialities, each one covering reading and writing a different language. All characters can speak and read their native language without needing the Language skill, and automated computer translator programs mean that Language skills are not always needed on other worlds. Having Language 0 implies that the character has a smattering of simple phrases in many languages.

Specialities
- **Anglic:** The common Trade language, derived originally from the English spoken in the Rule of Man.

Leadership

The Leadership skill is for directing, inspiring and rallying allies and comrades.

Life Sciences
- **Biology:** The study of living organisms.
- **Cybernetics:** The study of blending living and synthetic life.
- **Genetics:** The study of genetic codes and engineering.
- **Psionicology:** The study of psionic powers and phenomena.

Mechanic

The Mechanic skill allows the character to maintain and repair most equipment.

Medic

The Medic skill covers emergency first aid and battlefield triage as well as diagnosis, treatment, surgery and long-term care.

Melee

The melee skill covers attacking in hand-to-hand combat.

Specialities
- **Unarmed Combat:** Whether it is trained martial arts or street fighting learned the hard way, this is the skill for using your body as a weapon.
- **Blade:** Attacking with swords, rapiers, blades and other edged weapons.
- **Bludgeon:** Attacking with maces, clubs, staves and so on.
- **Natural Weapons:** The favoured combat skill of wild animals, this covers fighting with claws, teeth, and other weapons that are a part of you.

Navigation

Navigation is the planet-side counterpart of astrogation, covering plotting courses and finding directions on the ground.

Persuade

Persuade is a more casual, informal version of Diplomacy.

Pilot

The Pilot skill specialities cover different forms of spacecraft.

Specialities
- **Small Craft:** Shuttles and other craft under 100 tons.
- **Spacecraft:** Trade ships and other vessels between 100 and 5,000 tons.
- **Capital Ships:** Battleships and other ships over 5,000 tons.

Physical Sciences
- **Physics:** The study of the fundamental forces.
- **Chemistry:** The study of matter at the atomic, molecular, and macromolecular levels
- **Electronics:** The study of circuits and computers.

Recon

A character trained in Recon is able to scout out dangers and spot threats, unusual objects or out of place people.

Remote Operations

Remote operations is the skill of using telepresence to remotely control drones, missiles, robots and other devices.

Science

There are four separate Science skills – Physical Sciences, Life Sciences, Social Sciences and Space Sciences. Each science skill has a number of specialisations.

Seafarer

The Seafarer skill covers all manner of watercraft and ocean travel.

Specialities
- **Sail:** This skill is for wind-driven watercraft.
- **Submarine:** For vehicles that travel underwater.
- **Ocean Ships:** For large, motorised sea-going vessels.
- **Motorboats:** For motorised small craft.

Sensors

The Sensors skill covers the use and interpretation of data from electronic sensor devices, from observation satellites and remote probes to thermal imaging and densitometers.

Social Sciences

- **Archeology:** The study of ancient civilisations. It also covers techniques of investigation and excavations.
- **Economics:** The study of trade and markets.
- **History:** The study of the past, as seen through documents and records as opposed to physical artefacts.
- **Linguistics:** The study of languages.
- **Philosophy:** The study of beliefs and religions.
- **Psychology:** The study of thought and society.
- **Sophontology:** The study of intelligent living creatures.

Space Sciences

- **Planetology:** The study of planet formation and evolution.
- **Robotics:** The study of robot construction and use.
- **Xenology:** The study of alien life forms.

Stealth

A character trained in the Stealth skill is adept at staying unseen and unheard.

Steward

The Steward skill allows the character to serve and care for nobles and high-class passengers.

Streetwise

A character with the Streetwise skill understands the urban environment and the power structures in society.

Survival

The Survival skill is the wilderness counterpart of the urban Streetwise skill – the character is trained to survive in the wild, build shelters, hunt or trap animals, avoid exposure and so forth.

Tactics

This skill covers tactical planning and decision making, from board games to squad level combat to fleet engagements.

Specialities

- **Military Tactics:** Coordinating the attacks of foot troops or vehicles on the ground.
- **Naval Tactics:** Coordinating the attacks of a spacecraft or fleet.

Trade

A character with a Trade skill is trained in producing some useful goods or services.

- **Biologicals:** Engineering and managing artificial organisms.
- **Civil Engineering:** Designing structures and buildings.
- **Space Construction:** Building orbital habitats and megastructures.
- **Hydroponics:** Growing crops in hostile environments.
- **Polymers:** Designing and using polymers.

Vacc Suit

The Vacc Suit skill allows a character to wear and operate spacesuits and environmental suits. If the character does not have the requisite Vacc Suit skill for the suit he is wearing, he suffers a –2 DM to all skill checks made while wearing a suit for each missing level.

Zero-G

Having the Zero-G skill means the character is adept at moving around in micro-gravity environments and freefall. A character without the Zero-G skill suffers a –2 DM to all checks made in free-fall.

LEARNING NEW SKILLS

A character's Skill Total is calculated by summing the levels of each skill (level zero skills count as zero). A character with Mechanic 1 and Gun Combat (slug pistols) 2 would have a Skill Total of 3.

To increase a skill, a character must train for a number of weeks equal to his current Skill Total plus the desired level of the skill. So, to advance from Pilot 2 to Pilot 3 with a current Skill Total of 3 would take (three, plus three) six weeks. A character may only train one skill in a given week.

The Jack of all Trades skill cannot be learned.

COMBAT

If the combatants are all unprepared for combat, then each rolls 2d6 and adds their Dexterity DM to determine starting Initiative. Initiative determines the order that characters act in, but it can also be spent to react to events. If some of the combatants are ready for combat and some are not, such as in an ambush, the prepared characters are considered to get an automatic 12 on their roll, giving them an Initiative of 12 + Dexterity DM.

Characters who have the Tactics skill may make a Tactics check and add the Effect of this check to the Initiative of everyone in their unit.

The Combat Round

Each combat round lasts around six seconds of game time. In a combat round each character gets a minor action and a significant action. Actions are taken in descending order of Initiative. If two characters have the same Initiative, the character with the highest Dexterity goes first. If they are still tied, then characters act simultaneously. When a character acts, he takes all his actions at once.

Once everyone has acted a combat round is over and a new round begins. Initiative is not re-rolled but is dynamic, and may be adjusted up and down by actions taken during a round.

Dynamic Initiative

During the course of a round a character's Initiative score may be changed by reactions, recoil and hastening. Any changes affect your Initiative for one round only – either the current round if you have yet to act or the following round if you have acted already. Reactions reduce your Initiative in order to allow you to defend yourself from attacks. Recoil slows you down if you are using a weapon heavier than you can handle. Hastening your action lets you act sooner but at a penalty to your roll.

At the start of each combat round a character may declare that he is acting hastily. This gives him a +2 bonus to his Initiative for that round only but all his actions receive a –1 DM. A character can only hasten once.

MINOR ACTIONS
Movement

The character moves up to six metres. Difficult terrain, such as rubble, mud or thick underbrush can halve a character's movement, allowing him to move only three metres

per movement action. Crouching also halves movement.

Changing Stance

A character can change to any one of the three stances – prone, crouched or standing – as a minor action.

Drawing and Reloading

The time taken to draw a weapon depends on its size and ease of use. The number of minor actions to ready or reload a weapon is listed in the description of each weapon. Most weapons take one minor action to draw and another minor action to reload, but some weapons are especially fast or slow.

Aiming

A character who spends a minor action aiming at a target gets a +1 DM to his next attack on the target, as long as the character does nothing except aim until he makes his attack. A character may spend multiple actions on aiming, gaining a maximum aiming DM of +6 if he spends six minor actions on aiming.

Miscellaneous

The Referee may permit a character to perform a skill check or other action as a minor action if the use of the skill does not require the character's full attention or complex physical actions.

SIGNIFICANT ACTIONS
Minor Actions

A character can take two minor actions instead of a significant action.

Miscellaneous

A character may make a skill check or do something else as a significant action when such an action requires the character's full attention, concentration, complicated physical actions or some combination thereof.

Attack

The most common significant action is an attack. The basic attack action is trying to injure a foe with a melee attack or a ranged weapon. The attacker declares his target,

and the foe may choose to react. The attacker then makes a skill check, and if successful, deals damage to his target. As with any other skill check, the standard roll for success is 8+.

The standard skill checks used in making an attack are:

Melee Attack = 2d6 + Melee (appropriate specialty) + Strength or Dexterity DM (attacker's choice)

Shooting Attack = 2d6 + Gun Combat (appropriate specialty) or Heavy Weapons (appropriate specialty) + Dexterity DM

Thrown Attack = 2d6 + Athletics (co-ordination) + Dexterity DM

Common Modifiers to Attacks

Bonuses

Aiming	+1 per Aim action
Laser Sight	+1 if aiming
Intelligent Weapon	+1 if total DM is within the program's tolerance

Penalties

Cover	–0 to –6
Movement	–1 for every 10 full metres of target movement
Target Dodges (Reaction)	–1
Environmental Effects	–1 to –2
Range	–0 to –6
Target Stance	–2 if attacking a prone target at Medium or greater range +2 if attacking a prone target at Personal range
Target Parries (Reaction)	–Defender's Melee skill

Recoil and Heft

When you make an attack, compare your Strength DM to the Recoil rating of the weapon you are using. If your Strength DM is lower then the difference is applied to your initiative next round. Melee weapons have a rating called Heft which works in exactly the same way.

When firing automatic weapons in burst mode, increase Recoil by 1. When firing them on full auto increase Recoil by half the Auto score.

REACTIONS

The more time a character spends reacting, the longer it will be until he acts himself. Each reaction lowers Initiative by 2 and applies a –1 DM to all skill checks until the following round. There is no limit to how many times a character can react in a round but a character can only react once to each attack and the penalties from reacting are cumulative.

A character can only react to attacks that he is aware of.

Dodging

A character who is being attacked may dodge, giving his attacker a –1 DM and giving himself a –1 DM on all skill checks until the next round. If the character is in cover or has an obstruction to duck or dodge behind, the DM to hit him is increased to –2.

Parrying

A character who is being attacked in melee can parry, applying his Melee skill as a negative DM equal to the attack roll. A parrying character also has a –1 DM on all skill checks until the next round.

OTHER ACTIONS

Free Actions

Some actions are so fast they do not even qualify as a minor action – shouting a warning, pushing a button, checking your watch, and so on. A character can perform as many of these free actions as he likes in a turn, although if he performs several the Referee may require him to spend a minor or even a significant action on his various tasks.

Extended Actions

Some skill checks will take longer than a single combat round to complete. Make a Timing roll for the task and then work out how many six second combat rounds it will take to complete. A character engaging in an extended action cannot do anything else but can abandon their action at any time and return to the normal Initiative order. A character who is hit by an attack while undertaking an extended action must make an 8+ roll using the skill in question with a negative DM equal to the amount of damage the attack causes (after armour). Failure indicates that this round's work does not count towards the completion of the task. Failure by six or more (an Exceptional Failure) ruins the task and the character must start again.

Delay

A character does not have to act when his turn comes up in the Initiative order. He may act at any later point during the round, even interrupting another's actions to do so. When he acts, his Initiative is set to the count on which he acted. If the character has not acted by the end of the round he may choose to act first in the next round, effectively giving up his actions in the previous round in exchange for an Initiative advantage. His new Initiative is set to one higher than that of the current first person in the order. When multiple characters are delaying and all wish to act first in the following round, their Initiatives are all set to the same score and they act in Dexterity order as normal.

SPECIAL CONSIDERATIONS

Automatic Weapons

Automatic weapons – any with a number listed in the Auto column are capable of three fire modes: single-shot, burst, and auto-fire.

- When using single shots, make attacks as normal.
- When using burst fire, add the Auto value to the damage. Burst fire uses a number of rounds equal to the Auto rating.
- When using auto-fire, roll a number of dice equal to the Auto rating of the weapon and sort them into pairs as you wish. Each pair is an attack. Auto-fire attacks can be allocated to as many different targets as you have attacks provided all the targets are within six metres of each other. Auto-fire attacks cannot benefit from a skill any higher than level 1. Weapon skills of 2 or higher only count as 1 when making auto-fire attacks. Auto-fire uses a number of rounds equal to 3×the Auto rating.

Battlefield Comms

Communications technology is a vital part of the battlefield. If a character is not in communication with the rest of his unit and his commander, then he cannot benefit from Tactics or Leadership. Characters who benefitted from Tactics at the start of combat and are later cut off from their commander have their Initiative lowered by the same amount it was boosted at the start of combat. Unlike other Initiative modifications, this lasts until combat ends or communication is re-established. There are several methods of communication:

- **Direct:** This covers hand signals and verbal communications.
- **Hardlinks:** Hardlinks are wires or other physical connections, and cannot be jammed.
- **Radio:** Radio communications allow communications as long as the radio signal can get through – they can be jammed or blocked by local conditions.
- **Laser:** Two characters with tight beam lasers are in communication as long as line of sight exists between a character and another friendly laser-comm equipped character.
- **Masers:** These work just like lasers, but can cut through smoke and aerosols.
- **Meson:** Meson communicators cannot be jammed or blocked, but cannot be used while a character is moving.

Battlefield Sensors

There are several types of sensors.

- **Bioscanner:** Bioscanner 'sniffers' detect airborne pathogens and hazardous chemicals.
- **Infra-Red (Heat):** Infra-red sensors detect warm bodies, and negate concealment from smoke and soft cover, but can be jammed by strong heat sources.

- **Densitometer:** An outgrowth of gravitic technology, a densitometer can scan an area and plot variable densities, effectively creating a three-dimensional map of all objects.
- **Electromagnetic Detectors:** These sensors can detect unshielded high-power electrical devices, such as gauss weapons or transmitters.
- **Laser-Assisted Targeting:** A low-powered laser is reflected off the target, giving targeting data to the firer.
- **Light Intensification:** Light intensification technology magnifies visible light, negating the penalties for darkness or low light.
- **Motion Sensors:** Can detect motion within range.
- **Neural Activity Sensor:** A combination of highly sensitive EM-detectors and psionic theory, NAS detectors pick up on the brain activity of living beings and classifies them according to amount and complexity, giving a rough idea of the intelligence of subjects.

Certain battlefield conditions affect ranged attacks:

- **Darkness:** Low light gives a –1 DM to ranged attacks. Complete darkness gives a –4 DM. Light penalties can be avoided by using sensors to target instead of the naked eye.
- **Smoke or Fog:** Smoke gives a –1 DM to ranged attacks by obscuring the target; especially thick and impenetrable smoke gives a –2 DM. These penalties are doubled for laser weapons.
- **Extreme Weather:** Driving wind, rain, snowstorms and so forth give a –1 DM to ranged attacks from poor visibility and a –1 DM to ranged attacks from environmental interference. Sensors can be used to avoid the visibility penalty.

Cover

Any sort of low wall, undergrowth, convenient rocks or other objects can serve as cover. Attacks made on characters who are behind cover suffer the negative cover DM on the table below. Crouching or prone targets (see overleaf) can claim cover one step higher on the table. If a character in full cover is crouching or prone they are impossible to hit but cannot return fire.

Cover	Cover DM
1/4 (undergrowth, small rock, corner of a building)	–0
1/2 (thick forest, low wall, crate)	–1
3/4 (jungle, trench, reinforced position)	–2
Full (pillbox)	–4

Explosions

Grenades, rockets and other explosives affect an area. A character caught in an explosion may dodge at the usual Initiative cost. A character who dodges an explosion may reduce the damage by 1d6 if he just dodges or by half if he dives for cover. A character who dives for cover ends up prone and loses his next significant action.

Firing into Combat

If a character is firing a weapon at a target who is at Personal range to another combatant, then the attack suffers a –2 DM. If the attack misses, roll 1d6. On a 4+, the attack hits the nearest other combatant to the original target.

Grappling

A character can attempt to wrestle or grab another person instead of hitting him. The attacker must move to Personal range and beat his target in an opposed Melee (unarmed) check. If he wins, he may do any one of the following:

- Knock his opponent prone.
- Disarm his opponent. If he succeeds by 6+ he can take the weapon away; otherwise it ends up on the floor.
- Throw his opponent up to three metres for 1d6 damage.
- Inflict damage equal to 2 + the Effect.
- Escape the grapple and move away (as if with a normal movement action).
- Continue the grapple with no other effects.
- Drag his opponent up to three metres.

Throwing an opponent always ends the grapple. With any other option the winner can choose to end or continue the grapple as he sees fit. A character in a grapple cannot move or do anything other than make opposed Melee checks. Each time an opposed check is made the winner can choose an option from the above list.

Range

Personal combat is divided into a series of range bands:

Range	Distance to Target	Squares to Target
Personal	Less than 1.5 metres	0 (combatants are in the same square)
Close	1.5 to 3 metres	1 to 2 squares
Short	3 to 12 metres	3 to 8 squares
Medium	12 to 50 metres	9 to 34 squares
Long	51 metres to 250 metres	35 to 166 squares
Very Long	251 metres to 500 metres	167 to 334 squares
Distant	501 metres+	334 squares+

Stance

A character can be standing, crouched or prone.

A standing character uses the normal rules. A crouching character moves at half speed but can make better use of cover. If a crouching character is in cover, consider it one row lower on the Cover.

A prone character cannot make melee attacks or dodge. He may make improved use of cover like a crouching character and he may still parry melee attacks. All ranged attacks targeting him suffer a –2 DM penalty. At Close range, the penalty is reduced to +0; a prone character being attacked at Personal range grants a +2 DM to attacks against him.

Tactics and Leadership

The Tactics skill can be used to give an Initiative bonus to a whole unit at the start of combat. The unit commander may make a Tactics check, and everyone in the unit may increase their Initiative by the Effect of the check.

The Leadership skill can be used to increase another character's Initiative. The character with Leadership makes a Leadership check, and the target character's Initiative is increased by the Effect of the check. Making a Leadership skill check is a significant action.

Thrown Weapons

There are two kinds of thrown weapons: the first kind strike a single target and do damage from the force of their impact, such as throwing knives or a thrown rock. These use the normal rules for ranged combat. The other kind of thrown weapon is a grenade or other explosive projectile that inflicts no damage from impact but typically delivers a harmful payload. The first kind of thrown weapon adds the Effect of the Athletics (co-ordination) check to its damage. The second does not.

If the attack fails the projectile scatters in a random direction for (6 + Effect) metres. This is usually only important if the projectile explodes on or after impact.

DAMAGE

Each weapon lists the damage it inflicts as a number of d6. Add the Effect of the attack roll to this damage.

Damage is applied initially to the target's Endurance. If a target is reduced to Endurance 0, then further damage is subtracted from the target's Strength or Dexterity. If either Strength or Dexterity is reduced to 0, the character is unconscious and any further damage is subtracted from the remaining physical characteristic. If all three physical characteristics are reduced to 0, the character is killed.

Armour

Armour reduces damage by the value of the armour. A hit with Effect 6+ always inflicts at least one point of damage, regardless of the target's armour.

VEHICLES

Combat in and on vehicles is much the same as ordinary combat. The differences are as follows:

- Unlike people, who are mobile and manoeuvrable, careful track must be kept of which way a vehicle is facing. Vehicle-mounted weapons – and armed passengers, to a lesser extent – are restricted to certain fire arcs.
- Vehicles are considered to move on the driver's Initiative. The driver must spend a minor action every

round to keep control of the vehicle under normal circumstances – a straight road or simple manoeuvres – or a significant action to navigate obstacles, conduct evasion or pursuit, or dodge incoming fire.

- Attackers gain a +1 DM to hit most vehicles because of their size.

Types of Vehicles

There are two main types of vehicles: open and closed.

Closed Vehicles

- Closed vehicles grant cover to the occupants – unless the description mentions otherwise civilian vehicles grant $\frac{1}{2}$ soft cover and military vehicles full hard cover.
- Only a few people in a closed vehicle can shoot out, depending on the number of windows or other firing ports and the internal space available. Unless the description mentions otherwise up to two people can fire into each arc from a civilian vehicle and one person in each arc in a military one.

Open Vehicles

- Open vehicles grant no cover to the passengers.
- Any passenger in an open vehicle can shoot (or otherwise attack) in any direction.

Vehicle-Mounted Weapons

Weapons mounted on vehicles are limited in what directions they can fire. A weapon mounted in the front arc, for example, can only fire into a 90 area in front of the vehicle. Weapons in turrets can fire in any direction.

Collisions

When a vehicle collides with something else everything takes damage. Roll 1d6 for every 10 km/h of the vehicle's speed (round up). This is applied as damage directly to anything hit and, if the thing struck is solid enough, also to the ramming vehicle. Any unsecured passengers in a vehicle damaged in a collision take the same damage and, if possible, are thrown three metres for every 10 km/h of speed. Secured passengers (those wearing seatbelts or something similar) are not thrown anywhere and take one quarter damage.

Vehicular Actions

These are all significant actions that the driver of a vehicle can take when his turn in the initiative order arrives.

Evasive Action

Vehicles are not typically manoeuvrable enough to dodge as a reaction. Instead, the driver may declare that he is taking evasive action when his turn arrives. He makes a skill check (skill determined by vehicle) and the Effect acts as a –DM to all attacks against the vehicle or its passengers. The Effect also acts as a –DM to any attacks made from the vehicle as well. This lasts until the driver's next action.

Manoeuvring

A driver or pilot can manoeuvre his vehicle without making a skill check. This allows the vehicle to avoid large or obvious obstacles, to get where it is going, to move out of one fire arc of an enemy vehicle and into a different one, or to change the fire arc that a single target is in.

Ram

Deliberately driving a vehicle into someone or something requires a significant action and a successful skill check (skill determined by vehicle). Rams are affected by dodging and evasive action as normal. The Referee may grant bonuses to a ram attempt or declare it automatically successful if the target is particularly large.

Stunt

With a significant action and a successful vehicle control check the driver or pilot of a vehicle can do pretty much anything it is possible to do in his vehicle – stand a car up on two wheels, perform stunning aerobatics in a jet plane, or skim a speedboat over a low sandbar. A stunt can be used to put a single target into one additional fire arc for one round, to set up some other skill check using the rules for task chains, to achieve something that would normally be difficult or impossible in your vehicle, to achieve up to three manoeuvre actions in one go, just to show off, or anything else you can imagine.

Weave

In an environment with many obstacles, such as an inner city or tight underground caverns, a driver or pilot may choose to weave his vehicle in and around the obstacles at high speed in order to evade pursuit. The driver chooses a weaving number, as low as one or as high as one per 20 km/h of speed (round up), and must then make a skill check (skill determined by vehicle) with the weaving number as a penalty on his roll. If he fails, he has woven into an obstacle and crashed. If he succeeds, any pursuers must choose a weave action when their initiative count comes up and make their skill test at the same penalty with the same consequence for failure. Alternatively, they can choose to break off pursuit and either give up or try to reacquire the target later.

Vehicle Damage

Vehicles have a Hull value and a Structure value, which measure the vehicle's structural integrity. When Hull is reduced to 0, the vehicle starts taking damage to its internal systems. When Structure is reduced to 0, the vehicle is reduced to scrap. Vehicles also suffer damage to onboard systems as they take damage.

To determine the effects of an attack on a vehicle, first determine how much damage the vehicle suffers as normal. Many vehicles will have one or more points of armour that reduces the damage. Consult the Vehicle Damage table to determine how many 'hits' the vehicle suffers.

Vehicle Damage Table

Damage	Effect
0 or less	No damage
1–3	Single Hit
4–6	Two Single Hits
7–9	Double Hit
10–12	Three Single Hits
13–15	Two Single Hits, Double Hit
16–18	Two Double Hits
19–21	Triple Hit
22–24	Triple Hit, Single Hit
25–27	Triple Hit, Double Hit
28–30	Triple Hit, Double Hit, Single Hit
31–33	Two Triple Hits
For every extra three points	+1 Single Hit
For every extra six points	+1 Double Hit

Each hit is then applied to a particular location on the vehicle. Double or Triple hits count as two or three hits on the same location.

Location Table

2d6	External Hit (Vehicle)	Internal Hit (Vehicle)	Robot or Drone
2	Hull	Structure	Hull
3	Sensors	Power Plant	Power Plant
4	Drive	Power Plant	Sensors
5	Weapon	Cargo	Weapon or Limb
6	Hull	Structure	Hull
7	Armour	Passengers	Armour
8	Hull	Structure	Hull
9	Weapon	Cargo	Weapon or Limb
10	Drive	Computers	Drive
11	Sensors	Cockpit	Sensors
12	Hull	Cockpit	Computer

Hull

Reduce the vehicle or drone's Hull by one. If a vehicle runs out of Hull, further Hull hits become hits on the same row of the Internal Damage table (if a vehicle) or Structure hits (if a robot or drone).

Structure

Reduce the vehicle or drone's Structure by one. If a vehicle runs out of Structure, it is destroyed. If the vehicle is destroyed by an attack that reduces it to a negative Structure score it explodes, doing 4d6 damage to everyone within six metres (including the occupants) and 2d6 damage to everyone within twelve metres. The occupants of a closed vehicle cannot dodge or dive for cover from this explosion but the occupants of an open vehicle can.

Armour

Reduce the vehicle's armour by one.

Drive

First Hit: Reduce movement by 10% and apply a –1 DM to all vehicle control skill checks.

Second Hit: Reduce movement by 25% and apply a –2 DM to all vehicle control skill checks.

Third Hit: Drive disabled.

Further drive hits count as Hull hits.

Weapon

Choose a weapon or device randomly for each hit.

First Hit: The weapon or device suffers a –2 DM to all checks related to its operation.

Second Hit: The weapon or device is destroyed.

If no weapons remain to be destroyed, further hits on this location become Hull hits.

Sensors

First Hit: The vehicle or drone suffers a –2 DM to all Sensors checks. For drones and robots, this also applies to Recon checks.

Second Hit: The sensors are destroyed, blinding the vehicle or drone.

Further Sensor hits count as Hull hits.

Power Plant

First Hit: The vehicle or drone loses one round's worth of actions.

Second Hit: The vehicle or drone's movement is reduced by 50%.

Third Hit: The power plant is destroyed, disabling the vehicle and inflicting 1d6 Hull hits on it.

Limb

Choose a limb randomly for each limb hit.

First Hit: The limb suffers a –2 DM to all checks related to its operation.

Second Hit: The limb is destroyed.

Further Limb hits count as Hull hits.

Passengers

Choose a passenger randomly for any passenger hit. The passenger takes damage equal to the damage inflicted on the vehicle. If all the passengers are dead, further passenger hits become Structure hits.

Cargo

Any cargo present is hit and may be destroyed. If no cargo remains, further cargo hits become Structure hits.

Cockpit

The pilot of the vehicle is hit, and takes damage equal to the damage inflicted on the vehicle. If the pilot is dead, further pilot hits become Structure hits.

Computer

First Hit: The vehicle's computer system is disabled. A drone or robot with a disabled computer system shuts down for 1d6 rounds.

Second Hit: The vehicle's computer system is destroyed. A drone or robot with no computer system is completely disabled.

Further Computer hits count as Structure hits.

Repairs

Damage to a vehicle or drone falls into three categories – System Damage, Hull Damage, and Structure Damage.

System Damage: A damaged system can be jury-rigged back to functioning, but it will stop functioning again after 1d6 hours. Repairing a damaged system requires not only an Average skill check (Mechanic, Engineer (appropriate speciality) or Science (appropriate speciality)) taking 1–6 hours but also a source of spare parts.

The spare parts can come from a scrap yard, a workshop, systems on another vehicle, or can be taken from other systems on the same vehicle. When taking spare parts from other vehicle systems, each 'hit' of damage provides enough spare parts to make a single repair check.

The Passengers and Cockpit systems cannot take hits to provide spare parts, although cybernetic parts might be able to provide enough spare material to repair minor damage.

A destroyed system costs 2d6×10% of its original cost to repair, and cannot be repaired using spare parts. It requires a full workshop and specialist materials.

Hull Damage: Hull damage can be repaired with a Mechanic check taking 1–6 hours and consumes one 'hit' of spare parts.

Structure Damage: Structure damage can only be repaired in a workshop and requires 10–60 hours per point of damage. It costs 20% of the base cost of the vehicle per point repaired. No skill check is required.

ENCOUNTERS & DANGERS

ANIMALS

Animals have a similar range of characteristics to humans, but there are several differences:

Instinct: Instinct is the animal equivalent of Education. Animals apply their Instinct DM to tasks such as sensing prey or solving problems.

Pack: Pack is the animal equivalent of Social Standing. The higher a creature's Pack score, the larger the group that it is associated with, and the more standing the creature has in that group.

Behaviours

Terran creatures that exemplify these behaviours are noted in brackets after the name. Characteristic modifiers and skills are noted after the description – the exact level of skills varies depending on the particular creature.

- **Carrion-Eater (vulture):** Scavengers which wait for all other threats to disperse before beginning. Carrion-eaters have Recon. Instinct +2.
- **Chaser (wolf):** Animals which kill their prey by attacking and exhausting it after a chase. Chasers have Athletics (co-ordination and/or endurance). Dexterity +4, Instinct +2, Pack +2.
- **Eater (army ant):** Eaters will eat anything they encounter, including characters. Endurance +4. Pack +2.
- **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. Endurance +4.
- **Gatherer (raccoon, chimpanzee):** Gatherers are herbivores that collect and store food. Gatherers have Stealth. Pack +2.
- **Grazer (antelope):** Grazers move from food source to food source, often in large packs. Their primary form of defence tends to be fleeing danger. Instinct +2, Pack +4.
- **Hunter (baboon):** Opportunistic predators that stalk easy prey. Hunters have Survival. Instinct +2.
- **Hijacker (lion):** Scavengers which steal the kills of others through brute force or weight of numbers are hijackers. Strength +2, Pack +2.
- **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 and either Strength or Dexterity +4, Instinct +4, Pack –2.
- **Intermittent (elephant):** Herbivores that do not devote their entire time to searching for food. Intermittents have Pack +4.
- **Pouncer (cat):** Pouncers kill by stalking and ambushing their prey. Pouncers have Stealth, Recon and Athletics. Dexterity +4, Instinct +4.
- **Reducer (vermin):** Reducers are scavengers that act constantly on all available food, devouring even the remains left by other scavengers. Pack +4
- **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. Pack –4
- **Trapper (spider):** An animal which allows its prey to enter a trap. Generally, any creature surprised by a trapper is caught in its trap. Pack –2.

Creature Sizes and Characteristics

For each creature, roll 2d6 for its Size and apply any Dice Modifiers from its Terrain or Movement category. The creature's Size determines its Weight, Strength, Dexterity and Endurance – for example, a roll of 7 means that the creature has a Strength of 3d6, an Dexterity of 3d6 and an Endurance of 3d6.

Size Table

2d6	Weight (kg)	Strength	Dexterity	Endurance
1 or less	1	1	1d6	1
2	3	2	1d6	2
3	6	1d6	2d6	1d6
4	12	1d6	2d6	1d6
5	25	2d6	3d6	2d6
6	50	2d6	4d6	2d6
7	100	3d6	3d6	3d6
8	200	3d6	3d6	3d6
9	400	4d6	2d6	4d6
10	800	4d6	2d6	4d6
11	1600	5d6	2d6	5d6
12	3200	6d6	1d6	6d6
13	5000	7d6	1d6	7d6

Roll 2d6 separately for the animal's Weapons and Armour. Add a +8 DM when rolling for weapons if the animal is a Carnivore, and a +4 if it is an Omnivore; subtract a –6 DM if the animal is a Herbivore. Scavengers automatically have Teeth in addition to any other weapons. If a number is present after the Weapons type, then add that number to the number of damage dice the creature rolls.

Roll 2d6+DMs for the animal's Instinct and Pack. Intelligence for most animals is 0 or 1.

All animals have at least Survival 0, Athletics 0 and Recon 0, and most will have 1d6 ranks split among these skills, Melee (natural weapons), and any skills listed in their behaviour.

Damage from attacks depends on the creature's Strength score.

Strength	Damage
1–10	1d6
11–20	2d6
21–30	3d6
31–40	4d6
41–50	5d6
51–60	6d6

Number Encountered

Pack	Number Encountered
0	1
1–2	1d3
3–5	1d6
6–8	2d6
9–11	3d6
12–14	4d6
15+	5d6

Weapons Table

2d6	Weapons
1 or less	None
2	Teeth
3	Horns
4	Hooves
5	Hooves and Teeth
6	Teeth
7	Claws +1
8	Stinger +1
9	Thrasher +1
10	Claws and Teeth +2
11	Claws +2
12	Teeth +2
13+	Thrasher +2

Armour Table

2d6	Armour
1 or less	0
2	0
3	0
4	1
5	1
6	2
7	2
8	3
9	3
10	4
11	4
12	5
13+	5

Animal Reactions Table

Herbivore	Attack	Flee
Filter	10+ if possible	5-
Intermittent	10+	4-
Grazer	8+	6-
Omnivore		
Gatherer	9+	7-
Hunter	If the hunter is bigger than at least one character, then it attacks on a 6+. Otherwise, it attacks on a 10+	5-
Eater	5+	4-

Carnivore	Attack	Flee
Pouncer	If the pouncer has surprise, it attacks.	If the pouncer is surprised, it flees.
Chaser	If the chasers outnumber the characters, they attack.	5-
Trapper	If the trapper has surprise, it attacks.	5-
Siren	If the siren has surprise, it attacks.	4-
Killer	6+	3-
Scavenger		
Hijacker	7+	6-
Intimidator	8+	7-
Carrion-eater	11+	7-
Reducer	10+	7-

Animal Reactions

When characters disturb an animal or otherwise draw attention to themselves while within its territory roll 2d6 and consult the following table. If the result on the table is neither attack nor flee, then the animal stands still until provoked again, in which case roll again.

ENVIRONMENTAL DANGERS

Diseases

Diseases reduce a character's Characteristics, usually Endurance. The character must make an Endurance check with the listed DM to resist the effects of the disease. If the character fails the Endurance check then he takes the listed damage and must make another Endurance check a few hours or days later, depending on the interval of the disease. Once an Endurance check has been passed, the character has fought off the disease.

Disease	DM	Damage	Interval
Pneumonia	+0	1d6+4	1d6 weeks
Anthrax	−3	1d6+2	1d6 days
Regina Flu	+1	1d6−2	1d6 days
Biological Weapon	−6	1d6+8	1d6 hours

Poisons

Poisons operate in the same way as diseases, but generally work much faster and often have a wider range of effects. Most poisons do not have an interval but apply their damage immediately.

Poison	DM	Damage
Arsenic	−2	2d6
Tranq Gas	−1d6	Unconsciousness if Endurance check is failed
Neurotoxin	−4	1d6 Intelligence

Extremes of Temperature

Unusually hot or cold worlds can cause damage unless the characters are suitably protected. Temperatures are in Celsius.

Heat	Effect
50 (Very hot desert)	1d6/hour
200 (~Mercury)	1d6/round
500 (~Venus)	2d6/round
Burning Torch	1d6/round
Welding Torch	2d6/round
Inferno	3d6/round

Weather

High winds and torrential rain can inflict a negative Dice Modifier of −1 to −4 to all skill checks.

Falling

A character who falls on a 1-gravity world suffers 1d6 damage per two metres fallen. High- or low-gravity worlds will increase or decrease the damage. Look up the size code for the world and the gravity level associated with it and multiply the falling damage by the gravity number.

FATIGUE

A fatigued character suffers a −2 DM to all checks until he rests. The amount of rest needed is 3 − the character's Endurance DM hours. If a character suffers fatigue while already fatigued they fall unconscious.

Unconsciousness

An unconscious character may make an Endurance check after every minute of unconsciousness – if successful, he regains consciousness. If he fails he must wait another minute and can then try again with a +1 DM on the check for every check previously failed.

HEALING

Injury and Recovery

Injured characters are either wounded or seriously wounded. A character is considered seriously wounded if he has lost at least one point from all three of his physical characteristics. As soon as one of his physical characteristics is restored, no matter how, he is no longer seriously wounded.

Seriously wounded characters who have somehow avoided unconsciousness cannot move except to hobble or crawl along at 1.5 metres per combat round. They also lose their minor action in combat.

Wounded characters heal naturally and can also benefit from medical care. When characteristic points return from healing, players may choose which characteristic regains the points and may split healing between characteristics if they wish.

Natural Healing

An injured character regains a number of characteristic points equal to his 1d6 + Endurance DM per day of full rest. If the character continues an active lifestyle he only heals a number of characteristic points equal to 1 + Endurance DM per day. Characters with a low Endurance DM (quite possibly from injury) may degrade (lose more characteristic points) over time if they are unlucky or cannot (or will not) rest.

A seriously wounded character only regains characteristic points equal to his Endurance DM per day of rest, which means that the character may never heal naturally and will even get worse if his Endurance DM is currently negative.

Medical Treatment

First Aid: Applying first aid restores a number of characteristic points equal to twice the Effect of the Medic

check. Points restored by first aid are divided as desired among all damaged physical characteristics. First aid must be applied within five minutes of the injuries being received to be fully effective. A character can still benefit from first aid up to an hour after their injury but they only receive a number of characteristic points equal to the Effect of the Medic check. Performing first aid on yourself is a Difficult (–2) task.

Surgery: A character who is seriously wounded (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 characteristic points equal to the Effect. Surgery requires a hospital or sickbay. Once one characteristic is back to its maximum level the patient can benefit from medical care. Surgery does not benefit characters who are not seriously wounded. Performing surgery on yourself is a Very Difficult (–4) task.

Medical Care: Medical care restores 2 + the character's Endurance 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 patient to undergo full bed rest.

Augmentation and Medical Care: Cybernetic or genetic augments can interfere with medical treatment. All medical care or surgery Medic rolls treating a character suffer a negative DM equal to the difference in Technology Level between the medical facility and the highest relevant implant.

Healing and Mental Characteristics

Other than Psionic Strength, characters may also suffer damage to their Intelligence or even their Education. Unless otherwise specified, each mental characteristic heals at the rate of one point per day.

SAMPLE PATRONS

Each patron encounter lists:

- The patron's name and role.
- The skills and resources required to complete the mission
- The suggested reward for the mission
- The mission as described to the characters
- What's really going on. Several possible variants will be presented – either pick or roll for which is the real situation.

Jefri haut-Oschem, Planetologist

Required: Life Sciences, Survival; Spacecraft
Reward: Cr. 2,000/day plus expenses.

Players' Information

His Excellency haut-Oschem is a respected Planetologist, specialising in worlds that are nearly habitable. A planet might be a little too cold, or too dry, or be infested with a lethal native species. Haut-Oschem's genius is in making tiny changes to a planet's ecosystem or climate. All too often, a change can ripple out through the complex balances of a planetary environment and have unforeseen consequences.

Haut-Oschem requires a spacecraft and a crew trained in the sciences for a brief period of research – no more than a few weeks, possibly a month or two. While haut-Oschem has worked with the Scout Service in the past, this mission is entirely under the aegis of private research. The ship will be visiting worlds outside settled space.

Referee's Information

Any character with contacts in the Scout service can find out that haut-Oschem has quarrelled with the Survey section, and that his once-stellar career has dark clouds hanging over it. Something has gone wrong. . .

1. Haut-Oschem has been replaced in the eyes of the Scout service by a younger researcher, Harad Leish. Old haut-Oschem wants to prove that his theories and methodologies are still valid. Leish and a laboratory ship from the Scout Service are currently surveying a jungle world inhabited by numerous hostile species. To prove his worth, haut-Oschem needs to find a way for humans to live safely on the world before the Scout service do.

2. As above, but haut-Oschem is bitter, and his real plan is to sabotage Leish's survey team.

3. Haut-Oschem has discovered that he made a terrible mistake at the start of his career. He approved the settlement of a world before he fully understood the ecosystem. Every few centuries, a species of carnivorous locusts hatches in vast swarms and devours everything in their path. The characters need to find a way to stop the insects from hatching.

4. As above, but haut-Oschem wants to preserve his reputation above all else. The characters need to stop the insects without revealing what they're doing to the settlers.

5. Haut-Oschem discovered something very valuable on his most recent survey, such as a massive deposit of precious metals or alien technology. He wants the characters to help him recover it.

6. As above, but haut-Oschem is in a race with the Scout service. He's not the only one to have read between the lines in his latest survey.

EQUIPMENT

Each item is listed with the Technology Level needed to manufacture it, its mass (in kg) and its cost. If an item's mass or cost is not listed, then its mass or cost is negligible.

CREDITS

The Credit (Cr.) is the standard unit of currency in Traveller. Larger denominations include the Kilo-Credit (KCr; 1,000 Credits) and the MegaCredit (MCr; 1,000,000 Credits).

ARMOUR

Unless otherwise noted, only one type of armour can be worn at a time. Resolve damage from the outside in – damage that gets through the outer layer of armour is next applied to the inner layer.

Some armours have a required skill. A character suffers a –2 DM to all actions taken in the armour per missing skill level, including level 0.

Jack (TL 1): A natural or synthetic leather jacket or body suit covering the torso and upper arms and legs.

Mesh (TL 6): A jacket or body suit lined with a flexible metal or plastic mesh that gives it added protection against bullets.

Cloth (TL 7): A heavy duty body suit tailored from ballistic cloth. The fabric absorbs impact energy and spreads it over the body, which can result in bruising. However, cloth armour is highly useful and versatile – it can be effectively concealed under normal clothing although observers making an Investigate or Recon check at 8+ will notice something unusual.

Flak Jacket (TL 7): A less expensive version of ballistic cloth, the bulky flak jacket is an unmistakably military garment.

Vacc Suit (TL 8): The vacc suit or space suit is the spacer's best friend, providing life support and protection when in space. A vacc suit provides a breathable atmosphere and protection from the extremes of temperature, low pressure and radiation typically found in a hard vacuum, for six hours.

Hostile Environment Vacc Suit (TL 8): Hostile environment suits are designed for conditions where a normal vacc suit would be insufficient, such as deep underwater, worlds shrouded in toxic or corrosive gases, extremes of radiation or temperature, or other locales that offer serious

physical danger as well as the lack of a breathable atmosphere. HEV suits provide all the life support offered by a normal vacc suit (for six hours) but are also impervious to flames, intense radiation such as that found at nuclear blast sites, and high pressure environments like undersea trenches.

Ablat (TL 9): A cheap alternative to Reflec, ablat armour is made from a material that ablates (vaporises) when hit by laser fire. Each laser hit on ablat reduces its armour value (versus lasers) by one, but the armour is cheap and easily replaceable.

Reflec (TL 10): Reflec armour is a flexible plastic suit with layers of reflective material and heat-dispersing gel. It is highly effective against lasers, but provides no protection against other attacks. Reflec can be worn with other armour.

Combat Armour (TL 11): This full-body suit is used by the military and not generally available on the open market, although those with military or criminal contacts can obtain it without much difficulty. It is issued to troop units and mercenary battalions. Combat armour protects from hard vacuum in the same way as a vacc suit and provides life support for six hours.

Battle Dress (TL 13): The ultimate personal armour, battle dress is a powered form of combat armour. The servomotors vastly increase the user's speed and strength, boosting his Strength and Dexterity by +4 while wearing the armour. Damage to the wearer's characteristics is calculated as normal, but the values from the armour are used for all other purposes such as hand to hand damage or skill checks. The suit has a built-in computer/2 running an Expert Tactics (military)/2 program to give tactical advice and updates and is commonly outfitted with numerous upgrades. The suit is fully enclosed, with a six-hour air supply and gives full protection against environmental hazards – including NBC shielding – as if it was an HEV suit. TL 14 battle dress is considerably stronger, giving Strength +6 instead of +4, and upgrades its internal systems to Computer/3 (although still running Tactics 2).

Options

Most of the options listed here can also be applied to normal clothing at the same cost. The exceptions are extended life support and grav assist.

Eye Protection (TL 6): Many armours include eye protection such as visors or goggles to guard against flying debris but such protection becomes absolutely vital at

TL 9 to guard against the blinding effects of lasers. Eye protection can be added to any armour and is included for free in any TL 9+ armour. Cr 50.

Magnetic Grapples (TL 8): Magnetic plates in the boots of the armour allow the user to walk normally on a spacecraft without artificial gravity. Cr. 100.

Computer Weave (TL 10): Computer weave can be added to any armour that does not already have a computer system, and gives Computer/0 to that armour. Cr 500.

Extended Life Support (TL 10): This upgrade can be added to any suit that provides life support (vacc suit, HEV suit, combat armour, battle dress). By adding high-pressure oxygen tanks and recycling systems, the suit now provides eighteen hours of oxygen. Cr. 10,000.

Medikit (TL 10): An internal medical scanner and drug injector, the medikit can be installed in combat armour, battle dress or a vacc suit. It automatically applies first aid if the wearer is reduced to Endurance 0 (treat the Medikit as having Medic 3). It can also administer Fast Drug on command, or if life support systems are failing (turning remaining minutes of life support into hours). Cr 5,000. A TL 11 medikit can also inject Combat or Slow drugs and the Slow Drug antidote on command. Cr 10,000.

Smart Fabric (TL 10): Smart fabric resists stains and dirt, cleaning itself automatically. Cr. 1,000.

IR Chameleon (TL 12): IR (infra-red) chameleon technology can be added to any full-body suit of clothing or armour. It selectively bleeds heat to match background IR levels and effectively renders the wearer invisible to IR (Very Difficult (–4) to detect with sensors). IR Chameleon costs Cr. 5,000.

Grav Assist (TL 12): This upgrade can be added to combat armour or battle dress only, and adds the functionality of a grav belt to the armour at the cost of Cr. 110,000. The TL 15 version lasts longer. Costs Cr 120,000.

Vislight Chameleon (TL 13): A more advanced form of IR Chameleon, Vislight Chameleon covers the surface of the armour with light-bending technology, making the wearer nearly invisible to the naked eye (+4 DM to Stealth rolls). Vislight Chameleon costs Cr. 50,000.

AUGMENTS

Augmentation can bring characteristics above the normal maximum for a race.

Augments can interfere with medical treatment. All long-term care or surgery Medic rolls treating an augmented character suffer a negative DM equal to the difference in Technology Level between the medical facility and the highest relevant implant. For example, a character with TL 15 Endurance implants being treated in a TL 10 hospital would give a –5 DM to the surgeon's Medic skill checks.

Neural Comm (TL 10): A neural comm has identical capacities to a standard comm, but the cost is much higher and the TL is increased by 2. For example, an audio-only comm costs 250 Credits and is TL 10. A character can access the capabilities of a neural comm by thought alone but must still make any relevant skill checks and must still speak aloud to send audio messages.

TL 10	Audio only	Cr. 1,000
TL 12	Audio and visual, Computer/0	Cr. 5,000
TL 14	Multiple forms of data, Computer/1	Cr. 20,000

Subdermal Armour (TL 10): Adds a mesh of ballistic fibres to the skin and reinforces the bones, giving the character extra armour. Subdermal armour stacks with other protection.

TL 10	Armour 1	Cr. 50,000
TL 11	Armour 3	Cr. 100,000

Physical Characteristic Augmentation (TL 11): A character's Endurance, Strength or Dexterity can be increased in various ways, from replacing motor neurons with faster synthetic cells, to reinforcing bones and replacing organs with tougher vat-grown clones. Augmentations must be purchased for each characteristic separately.

TL 11	Characteristic +1	Cr. 500,000
TL 12	Characteristic +2	Cr. 1,000,000
TL 15	Characteristic +3	Cr. 5,000,000

Augmentation (TL 12): Replacing slow nerve cells with faster synthetic substrates and implanting optoelectronic boosters can increase the speed at which a character thinks, effectively boosting his Intelligence.

TL 12	Intelligence +1	Cr. 500,000
TL 14	Intelligence +2	Cr. 1,000,000
TL 16	Intelligence +3	Cr. 5,000,000

Skill Augmentation (TL 12): The character's nervous system is rewired to be more suited to a particular task. A pilot might have his reflexes and sense of balance improved; a broker might be made capable of controlling his pupil responses and smelling the pheromones and skin salinity of the other party. A skill augmentation gives the character a +1 DM when using that skill. Cr. 50,000. A character can only have one skill augmentation and must possess that skill at level 0 to benefit from the augmentation.

Wafer Jack (TL 12): A wafer jack is a computer system implanted into the base of the skull that consists of an external data socket and a processor running an interface program. A character with a wafer jack can use expert programs for tasks relying on Intelligence or Education only. The main benefit of the jack is that it is much smaller and more discrete than a hand computer, and the user can access the expert program by thought alone. A wafer jack is a Computer/2 (Computer/4 at TL 13) and can only run expert programs. It is always running Intelligent Interface at no cost. Cr. 10,000. (Cr. 15,000 at TL 13.)

Enhanced Vision (TL 13): A character can be implanted with cybernetic eyes giving him the abilities of a set of binoculars and IR/ Light Intensifier goggles at the cost of Cr. 25,000.

Transceivers

Radio Transceivers	Mass (kg)	Range	Cost (Cr.)
TL 5	20	Distant (5 km)	50
TL 8	2	Distant (5 km)	100
TL 9 (Computer/0)	1	Very Distant (50 km)	250
TL 12 (Computer/0)	1	Regional (500 km)	500
TL 13 (Computer/1)	1	Continental (5,000 km)	1,000

Laser Transceivers	Mass (kg)	Range	Cost (Cr.)
TL 9	1.5	Regional (500 km)	100
TL 11 (Computer/0)	0.5	Regional (500 km)	250
TL 13 (Computer/1)	–	Regional (500 km)	500

COMMUNICATIONS

Bug (TL 5): Surveillance devices such as hidden microphones and tiny cameras, bugs are available from TL 5 onwards. They rapidly miniaturise and become more intelligent. A TL 14 bug can be no bigger than a dust mote. The smaller a bug, though, the shorter its range – a bug that transmits data needs a much larger power supply than one that just records until it is collected.

TL 5	Audio	Cr. 50
TL 7	Audio or Visual	Cr. 100
TL 9	Audio or Visual or Data	Cr. 200
TL 11	Audio/Visual/Data	Cr. 300
TL 13	Audio/Visual/Data/Bioscan	Cr. 400
TL 15	Audio/Visual/Data/Bioscan/ Computer/1	Cr. 500

Audio: The bug records anything it hears.

Visual: The bug records anything it sees.

Data: If attached to a computer system, the bug can search and copy data from the computer. The bug cannot breach computer security on its own, but if a user accesses the computer in the bug's presence, the bug can read his data.

Bioscan: The bug has a basic biological scanner, allowing it to sample the area for DNA traces, chemical taint and so forth.

Computer/1: The bug has an onboard computer system with Computer/1.

A bug can be active or passive. An active bug transmits data (either constantly, or when triggered). Passive bugs just record until activated.

Transceiver (TL 5): A transceiver is a stand-alone communications device. Unlike a comm, which relies on the presence of an established communications network, a transceiver can send and receive directly under its own power.

To reach orbit reliably, a transceiver needs a range of 500 kilometres.

Comm (TL 6): A personal comm unit is a portable telecommunications device/computer/camera, ranging in size from a bulky handset to a slim watch or pen-like cylinder. Larger comms have physical controls and screens, while smaller units either project data and control displays onto nearby surfaces, have fold-out plastic screens, or connect to cybernetics. Comms have only short-range transmission and reception capabilities, but most technologically advanced worlds will have planet-wide comm networks allowing the user to send messages and access data anywhere.

TL 6	Audio only	Cr. 50
TL 8	Audio and visual, computer/0	Cr. 150
TL 10	Multiple forms of data, computer/1	Cr. 500

Commdot (TL 10): A commdot is a tiny microphone/speaker and transmitter, ranging in size between a few centimetres and a few millimetres across. A commdot is capable of interfacing with another communications device and relaying messages back and forth. Commdots have a range of only a few metres. They are usually used as hands-free communicators, but can also be used as improvised bugs or throat microphones. Cr. 10 each.

Holographic Projector (TL 11): A holographic projector is a toaster-sized box that, when activated, creates a three-dimensional image in the space around it or nearby – the range is approximately three metres in all directions. The image can be given pre-programmed animations within a limited range and the projector includes speakers for making sound. The projected holograms are obviously not real so this device is mostly used for communication. The TL 12 version can produce holograms real enough to fool anyone who fails an Intelligence check (made upon first seeing the hologram) and the TL 13 version can produce holograms that are true-to-life images.

TL 11	Cr. 1,000
TL 12	Cr. 2,000
TL 13	Cr. 10,000

COMPUTERS

The power of a computer is given by its rating (Computer/1, Computer/2 and so forth), which measures the complexity of the programs it can run. (Storage space is effectively unlimited at TL 9 and above.) Programs are rated by the computer rating they require. A system can run a number of programs up to its rating.

The computers listed here are laptop size. Battery life is two hours at TL 7, eight hours at TL 8, and effectively

unlimited at TL 9 and above. Desktop computers offer a slightly greater amount of processing power for the same cost but not enough to make a difference in-game. Desktops become obsolete during TL 8.

Optimum TL	Computer Power	Mass (kg)	Cost (Cr.)
TL 7	Computer/0	10	50
TL 8	Computer/1	5	100
TL 9	Computer/1	5	250
TL 10	Computer/2	1	350
TL 11	Computer/2	1	500
TL 12	Computer/3	0.5	1,000
TL 13	Computer/4	0.5	1,500
TL 14	Computer/5	0.5	5,000

Computer Terminal (TL 7): This is a 'dumb terminal', with only limited processing power. It serves as an interface to a more powerful computer such as a ship's computer or planetary network. Terminals range in size depending on their control method – a holographic display terminal can be much smaller than one with a physical keyboard and screen. A computer terminal has Computer/0, and costs Cr. 200.

Hand Computer (TL 7): A hand computer is a portable computer system with considerable processing power. It is more powerful than a computer terminal, and can be used without access to a network. A hand computer costs twice as much as a normal computer of the same TL but can he held in one hand and operated with the other.

Options

Data Display/Recorder (TL 13): This headpiece worn over one or both eyes provides a continuous heads-up display for the user, allowing him to view computer data from any linked system. Because of the transparent screen vision is not obscured while using a DD/R headset. DD/Rs can display data from any system, not just computers – they can display vacc suit oxygen reserves, grav belt status, neural activity scanner results and so forth. Cr. 5,000.

Data Wafer (TL 10): The principle medium of information storage is the standard data wafer, a rectangle of hardened plastic about the size of a credit card. A TL 10 data wafer is memory diamond, with information encoded in structures of carbon atoms; more advanced wafers use more exotic means of data storage. Cr 5.

Computer: A computer can be designed for a specific purpose, which gives it a rating of 1 or 2 higher for that program only. The navigation computer on a starship might be only a Computer/1, but it could run the Expert Navigation/3 program because it is specially designed for that task. A specialised computer costs 25% more per added rating. In addition, running the program a computer is specialised for does not use up rating when working out how many programs the computer can run simultaneously.

SOFTWARE

A character can use any high-rating software at a lower rating, to a minimum of the lowest rating shown.

Programs above Rating/1 cannot be copied easily, as they require a non-trivial amount of bandwidth to transfer.

MEDICAL SUPPLIES

Cryoberth (TL 10): A cryoberth, or 'icebox', is a coffin-like machine similar to the low or frozen berths used on some spacecraft. A cryoberth can be used to place a severely injured character into stasis until he receives medical treatment. While in a cryoberth, a character's wounds neither heal nor degrade and all disease and poison activity is halted. A cryoberth's internal power system can function for up to one week on its own, but a berth is usually connected to a vehicle's power supply. Wt. 200 kg, Cr. 50,000.

Medikit (TL 8+): There are different types of medikit available at different Technology Levels. All medikits contain diagnostic devices and scanners, surgical tools and a panoply of drugs and antibiotics, allowing a medic to practise his art in the field. Higher-technology medikits do not give a bonus to basic treatment, but can help with more exotic problems or when treating augmented individuals. For example, a TL 8 medikit can test blood pressure and temperature (among other things); a TL 14 kit has a medical densitometer to create a three-dimensional view of the patient's body and can scan brain activity on the quantum level. All medikits weigh 8 kg.

TL 8	Cr. 1,000.
TL 10	Cr. 1,500.
TL 12	Cr. 5,000.
TL 14	Cr. 10,000.

Drugs

Medicinal Drugs (TL 5+) include vaccines, antitoxins and antibiotics. They range in cost from five credits to several thousand credits, depending on the rarity and complexity of the drug. Medicinal drugs require the Medic skill to use properly – using the wrong drug can be worse than doing nothing. With a successful Medic check the correct drug can counteract most poisons or diseases, or at the very least give a positive DM towards resisting them. If the wrong drug is administered, treat it as a Difficult (–2 DM) poison with a damage of 1d6.

Panaceas (TL 8+) are wide-spectrum medicinal drugs that are specifically designed not to interact harmfully. They can therefore be used on any wound or illness and are guaranteed not to make things worse. A character using panaceas may make a Medic check as if he had Medic 0 when treating an infection or disease. Panaceas cost 200 credits per dose.

Anti-rad drugs (TL 8) must be administered before or immediately after (within ten minutes) radiation exposure. They absorb up to 100 rads per dose. A character may only use anti-rad drugs once per day – taking

any more causes permanent Endurance damage of 1d6 per dose. Cr. 1,000 per dose.

Stim drugs (TL 8) remove fatigue, at a cost. A character who uses stim may remove the effects of fatigue but suffers one point of damage. If stims are used to remove fatigue again without an intervening period of sleep, the character suffers two points of damage the second time, three points the third time, and so on. Stims cost 50 credits per dose.

Metabolic accelerator ('Slow Drug', TL 10) boosts the user's reaction time to superhuman levels. A character using slow drug in combat adds +8 to his initiative total at the start of combat (or whenever the drug takes effect). He may also dodge up to twice each round with no effect on his initiative score. The drug kicks in 45 seconds (eight rounds) after ingestion or injection and lasts for around ten minutes. When the drug wears off, the user's system crashes. He suffers 2d6 points of damage and is exhausted. Metabolic accelerator costs 500 credits per dose.

Combat Drug (TL 10): This drug increases reaction time and improves the body's ability to cope with trauma, aiding the user in combat. A character using a combat drug adds +4 to his initiative total at the start of combat (or whenever the drug takes effect). He may also dodge once each round with no effect on his initiative score and reduces all damage suffered by two points. The drug kicks in twenty seconds (four rounds) after injection, and lasts around ten minutes. When the drug wears off, the user is fatigued. Combat drugs cost 1,000 credits per dose.

Medicinal Slow (TL 11) is a variant of the slow drug. It can only be applied safely in a medical facility where life-support and cryo technology is available as it increases the metabolism to around thirty times normal, allowing a patient to undergo a month of healing in a single day. Medicinal slow costs 500 credits per dose.

Fast Drug (TL 10) or 'Hibernation' puts the user into a state akin to suspended animation, slowing his metabolic rate down to a ratio of 60 to 1 – a subjective day for the user is actually two months. Fast drug is normally used to prolong life support reserves or as a cheap substitute for a cryoberth. Fast drug costs 200 credits per dose.

Anagathics (TL 15) slow the user's aging process. Synthetic anagathics become possible at TL 15, but there are natural spices and other rare compounds that have comparable effects at all Technology Levels. Anagathics are illegal or heavily controlled on many worlds. They cost 2,000 Credits per dose. One dose must be taken each month to maintain the anti-aging effect – if the character taking anagathics misses a dose they must make an immediate roll on the aging table as their body reacts badly to the interrupted supply.

Medical Care

Healing: An injured character who needs hospital care for a prolonged period will pay approximately 100 credits per month per Technology Level. (At TL 11+ the doctors will just use medicinal slow in most cases and charge for that instead.) Surgery costs 1d6×50×Technology Level in Credits.

Replacements: A character whose injuries require cloning limbs or cybernetic replacement must pay 5,000 credits per Characteristic point.

ROBOTS AND DRONES

A robot has an Intellect program running, allowing it to make decisions independently, while drones are remote-controlled by a character with the Remote Operations skill.

Robots and drones operate in combat like characters but take damage as if they were vehicles. They have Hull and Structure characteristics instead of an Endurance characteristic, and an Endurance DM of 0. Any robot running an Intellect program has an Intelligence and Education score. Drones have neither. A robot's Education characteristic is representative of the information programmed into it and even low-end robots can have high Education scores. Most robots have Social Standing characteristics of 0 as they are not social creations but there are some exceptions, usually high-end models running advanced Intellect programs. Drones do not have Social Standing but in cases where they are used to engage in diplomacy or other social intercourse the operator can use his own Social Standing score.

Cargo Robot (TL 11)

These simple, heavy-duty robots are found in starport docks and on board cargo ships. Cargo drones can be constructed as low as Technology Level 9 but their utility is extremely limited until the invention of Intellect programs.

Characteristics: Strength 30 (+8), Dexterity 9 (+1), Hull 2, Structure 2, Intelligence 3 (–1), Education 5 (–1), Social Standing 0 (–3)
Traits: Armour 8, Huge, Specialised Computer/1 (running Intellect/1 and Expert Trade (any physical)/1)
Weapons: Crushing Strength (Melee (unarmed), 3d6 damage)
Price: 75,000 Credits

Repair Robot (TL 11)

Shipboard repair robots are small crab-shaped machines that carry a variety of welding and cutting tools. Specialised repair robots may run Expert Engineer (any) rather than Expert Mechanic.

Characteristics: Strength 6 (+0), Dexterity 7 (+0), Hull 1, Structure 1, Intelligence 5 (–1), Education 6 (+0), Social Standing 0 0 (–3)
Traits: Integral System (mechanical toolkit), Specialised Computer/1 (running Intellect/1 and Expert Mechanic/2)
Weapons: Tools (Melee (unarmed), 1d6 damage)
Price: 10,000 Credits

Personal Drone (TL 11)

This is a small floating globe about thirty centimetres in diameter. It is equipped with holographic projectors which can display the image of a person, allowing a character to have a virtual presence over a great distance.

Characteristics: Strength 2 (–2), Dexterity 7 (+0), Hull 1, Structure 1

Traits: Tiny, Integral System (comm, audio/visual), Integral System (grav floater), Integral System (TL 11 holographic projector)

Price: 2,000 Credits

Probe Drone (TL 11)

A probe drone is a hardened version of a personal remote, armoured and carrying more sensor packages. They have an operating range of five hundred kilometres, and can fly at a speed of 300 kph.

Characteristics: Strength 3 (–1), Dexterity 7 (+0), Hull 3, Structure 3

Traits: Armour 5, Integral System (comm, audio/visual), Integral System (grav belt), Integral System (TL 11 holographic projector), Integral System (every sensor available at TL 11 and below)

Price: 15,000 Credits

Autodoc (TL 12)

An autodoc is a specialised, immobile medical robot, which is often installed inside vehicles or spacecraft.

Characteristics: Strength 6 (+0), Dexterity 15 (+3), Hull 1, Structure 1, Intelligence 9 (+1), Education 12 (+2), Social Standing 0 (–3)

Traits: Integral System (TL 12 medikit), Specialised Computer/1 (running Intellect/1 and Medic/2)

Weapons: Surgical Tools (Melee (small blade), 1d6 damage)

Price: 40,000 Credits

Combat Drone (TL 12)

Combat drones are little more than flying guns mated to a grav floater and a computer system. The drones must be piloted with the Remote Operations skill but attacks are made using the appropriate weapon skill. Combat drones loaded with Intellect and combat Expert programs (making them autonomous combat robots) are illegal on many worlds.

Characteristics: Strength 12 (+2), Dexterity 10 (+1), Hull 4, Structure 4

Traits: Armour 9, Integral System (grav floater), Integral Weapon (any)

Weapons: Any gun

Price: 90,000 Credits plus the cost of the weapon (the Integral Weapon upgrade is included)

Servitor (TL 13)

Servitor robots are expensive humanoid robots who are programmed to act as butlers or servants to the nobility. Some servitor owners reprogram their robots with Expert Carouse or Expert Gambler to better suit their lifestyle.

Characteristics: Strength 7 (+0), Dexterity 9 (+1), Hull 2, Structure 2, Intelligence 9 (+1), Education 12 (+2), Social Standing 7 (+0)

Traits: Computer/3 (running Intellect/1 and Expert Steward/2 – servitors also have Expert Diplomacy/2 and Translator/1 available should they be necessary)

Weapons: Robot Punch (Melee (unarmed), 1d6 damage)

Price: 120,000 Credits

Options

Armour: Armour can be increased by 5, which increases the drone or robot's cost by 25%.

Integral System: Certain devices can be built into drones or robots by increasing the cost of the device by +50%. Popular choices include toolkits of different kinds, various sensors, or mobility upgrades like thruster packs or grav floaters.

Integral Weapon: Any suitable weapon can be added to a drone or robot, at the cost of Cr. 10,000 + the cost of the weapon.

SENSORS

At TL 11 sensors become notably more discriminating because they can be hooked up to a system running Intellect/1 that can dynamically filter information based on pre-set parameters – not sounding the alarm if the motion sensor picks up anything too small to be an intruder, for example.

Sensor equipment does not offer a bonus to skill checks but allows the user to find things that they would otherwise not be able to.

Binoculars (TL 3): Allows the user to see further. 1 kg, Cr. 75. At TL 8 electronic enhancement allows images to be captured; light-intensification allows them to be used in the dark. Cr 750. At TL 12 PRIS (Portable Radiation Imaging System) allows the user to observe a large section of the EM-spectrum, from infrared to gamma rays. Cr 3,500.

Geiger Counter (TL 5): Detects radiation, both presence and approximate intensity. Cr. 250. The Sensors skill is not needed to detect the presence of radiation with a Geiger counter but anything more complex than that requires a check.

IR Goggles (TL 6): Permits the user to see exothermic (heat-emitting) sources in the dark. Cr. 500.

Light-Intensifying Goggles (TL 7): Permits the user to see normally in anything less than total darkness by electronically intensifying any available light. Cr. 500.

At TL 9, IR goggles and light-intensifying goggles can be combined into a single unit costing Cr. 1,250.

Motion Sensor (TL 7): A motion sensor simply detects any and all movement within the area assigned to it. It cannot differentiate between kinds of movement, it just reports whether there is movement or not in an area roughly six metres in diameter. Cr. 500. At TL 9 the mo-

tion detector can report the general qualities of motion – size, speed and duration – but no more. Cr. 1,000. The Sensors skill is not required to use a motion detector to detect motion. When trying to interpret data from a TL 9 motion sensor, the Sensors skill may need to be checked.

Electromagnetic Probe (TL 10): This handy device detects the electromagnetic emissions of technological devices, and can be used as a diagnostic tool when examining equipment (+1 DM to work out what's wrong with it) or when searching for hidden bugs or devices. Cr 1,000. The Sensors or Investigation skills can be used to sweep a room for bugs.

Densitometer (TL 14): The remote densitometer uses an object's natural gravity to measure its density, building up a three-dimensional image of the inside and outside of an object. 5 kg. Cr. 20,000.

Bioscanner (TL 15): The bioscanner 'sniffs' for organic molecules and tests chemical samples, analysing the make-up of whatever it is focussed on. It can be used to detect poisons or bacteria, analyse organic matter, search for life signs and classify unfamiliar organisms. 3.5 kg. Cr. 350,000. The data from a bioscanner can be interpreted using the Sensors or the Life Sciences (biology) skills.

NAS (TL 15): This device consists of a backpack and detachable handheld unit, and can detect neural activity up to 500 metres away. The device can also give a rough estimation of the intelligence level of organisms based on brainwave patterns. 10 kg. Cr 35,000. The data from a neural activity scanner can be interpreted using the Sensors, the Life Sciences (biology) or the Social Sciences (sophontology) skills.

SURVIVAL GEAR AND SUPPLIES

Tent (TL 3): A basic tent provides shelter for two people against the weather, reducing skill check penalties by 2. Cr. 200. The TL 7 tent can be pressurised. There is no airlock – the tent is depressurised when opened. Cr 2,000.

Rebreather (TL 6): The rebreather is a bulky backpack containing breathable atmosphere and a face mask that collects exhaled gasses and 'scrubs' them back into breathable gasses again. A rebreather provides six hours of breathable atmosphere and can be used to breathe in any environment that is not otherwise harmful, such as underwater. 10 kg, Cr. 250.

Respirator (TL 6): This device concentrates inhaled oxygen, allowing a character to breathe on worlds with a thin atmosphere. Respirators take the form of a face mask or mouthpiece initially. Cr. 100. The more advanced TL 10 respirator is small enough to fit into the nose, or can even be a lung implant for 3×cost. Cr. 2,000.

Filter (TL 7): Filters are breathing masks that strip out harmful elements from the air inhaled by the character, such as dangerous gases or dust particles. Cr 100. The TL 10 filter is small enough to fit into the nose, or can even be a lung implant for 3×cost. Cr. 2,000.

Breather Mask (TL 8): Combines the filter and respirator into a single package. Cr. 150.

Artificial Gill (TL 8): Extracts oxygen from water allowing the wearer to breathe underwater. Only works on worlds with breathable atmospheres (type 4–9). 4 kg. Cr 4,000.

Environment Suit (TL 8): Designed to protect the wearer from extreme cold or heat, the environment suit has a hood, gloves and boots but leaves the face exposed in normal operations. Costs Cr 500.

Habitat Module (TL 8): A modular, unpressurised quarters for six people, capable of withstanding anything less than hurricane-force winds. Includes survival rations and enough batteries to keep the lights on and the heaters (or air conditioning) running for a week. Requires 12 man-hours to assemble, and can be attached to other modules to form a base. Cr 10,000. The TL 10 module is pressurised, and includes life-support for six occupants for one week (1000 person/hours). Cr 20,000.

Rescue Bubble (TL 9): A large (2m diameter) pressurised plastic bubble. Piezoelectric layers in the bubble wall translate the user's movements into electricity to recharge the bubble's batteries and power its distress beacon, and a small oxygen tank both inflates the bubble and provides two person/hours of life support. A self-repairing plastic seal serves as an emergency airlock. Rescue bubbles are found on both space and sea vessels as emergency lifeboats. Cr. 600.

Thruster Pack (TL 9): A simple thruster pack gives the user the ability to manoeuvre in zero-gravity. A Zero-G check is required to use a thruster pack accurately. Thruster packs can only be used in microgravity environments and are only practical for journeys between spacecraft at Adjacent range. Cr. 2,000.

At TL 12 the long-range thruster pack gives 0.1g acceleration for up to 48 hours, using standard starship fuel. This increases its practical range on the spacecraft scale to Short but gives it a weight of 10 kg. Cr. 14,000. The TL 14 version of the long-range pack is much smaller as it uses grav-thruster plates instead, but has the same performance profile as the TL 12 version. Cr. 20,000.

Portable Generator (TL 10): This is a heavy-duty portable fusion generator, capable of recharging weapons and other equipment for up to one month of use. Cr. 500,000.

Options

Self-Assembling (TL 11): The self-assembling upgrade can be given to tents, habitat modules and other basic structures. The structure is capable of expanding and assembling itself with only minimal aid, reducing the time needed to set up the shelter to a single man-hour. Cr. 5,000.

Self-Sealing (TL 13): Structures can be made self-repairing and self-sealing at TL 13 for Cr. 2,000. Small breaches and rips are automatically fixed in seconds.

TOOLKITS

Technical skills require specialist tools of various kinds. These kits contain diagnostic sensors, hand tools, computer analysis programs and spare parts. All kits cost Cr. 1,000 and weigh 12 kg.

Engineer (specific specialty): Required for performing repairs and installing new equipment.

Forensics: Required for investigating crime scenes and testing samples.

Mechanical: Required for repairs and construction.

Scientific: Required for scientific testing and analysis.

Surveying: Required for planetary surveys or mapping.

WEAPONS

Weapons are described with the following statistics:

TL: The lowest Technology Level at which the weapon is available.

Range: The range modifiers used for that weapon.

Damage: The damage the weapon inflicts.

Auto: The Auto rating of the weapon if it is capable of automatic fire.

Recoil: The Recoil rating of the weapon.

Mass: The amount, in kilograms, that the weapon weighs on a world with Earth-like gravity.

Magazine: The number of shots the weapon can take before needing to be reloaded or connected to a new power pack. Unless specified otherwise in the weapon's description it takes only a single minor action to reload or two to switch to a new power pack.

Cost: The weapon's cost in credits.

Ammo Cost/Power Pack: The cost in credits to buy a spare magazine for a gun or a spare power pack for an energy weapon.

Melee Weapons

Blade: A hybrid knife weapon, somewhere between a dagger and a cutlass, with a large basket hilt.

Broadsword: A heavy two-handed sword.

Cutlass: The standard shipboard blade weapon, often kept near airlocks to repel boarders.

Rapier: A character using a rapier increases their effective Melee (large blade) skill by one level when parrying.

Club: Whether a handy length of metal piping or an extending riot baton made of advanced polymers, the club remains a popular and practical weapon wherever intelligent species gather.

Dagger: Daggers are especially suited to close-quarters combat – while grappling someone armed with a dagger can do Effect + 4 damage if they choose to hurt their opponent.

Improvised Weapon: When there's no real weapon available and your bare hands just aren't enough, any snatched-up object can be used as an impromptu club.

Shield: A character using a shield increases their effective Melee (unarmed) skill by one level when parrying.

A character with no Melee counts as having Melee 0 when using a shield to parry.

Staff: A length of wood or metal that can be used in a variety of combat styles, to aid walking, or to poke potentially dangerous things from a distance.

Stunstick: This melee weapon deals 2d6 stun damage in addition to its normal damage. A character struck by a stun stick must make an Endurance check with a negative DM equal to the stun damage (after armour is subtracted). If this Endurance check is failed, the character is knocked unconscious.

Slug Throwers

Accelerator Rifle: Also known as gyrojet weapons, accelerator rifles are designed for zero-gravity combat. They fire tiny missiles that leave the rifle with minimal velocity and thus minimal recoil, then accelerate to high speed.

Advanced Combat Rifle (ACR): The ultimate evolution of the conventional firearm, advanced combat rifles are the weapon of choice for many military units. Standard equipment includes an electronic battlefield sight, incorporating both light amplification and IR abilities, visual magnification up to 5x zoom, and a laser rangefinder which may also be used as a target painting device (reveals exact distance to target). The weapon is also gyroscopically stabilised during firing.

Antique Pistol: Unless the weapon is especially well made, it will have a –1 DM to attacks. Antique pistols require three minor actions and a successful Gun Combat (slug pistol) check to reload. Failure means you have to start again.

Antique Rifle: Unless the weapon is especially well made, it will have a –1 DM to attacks. Antique rifles require three minor actions and a successful Gun Combat (slug rifle) check to reload. Failure means you have to start again.

Assault Rifle: Assault rifles fire lighter projectiles than rifles, but are capable of a higher rate of fire and are more suitable to short-range encounters.

Autopistol: Variants of this semi-automatic pistol are the standard sidearm for law enforcement officers and criminals.

Autorifle: Automatic rifles have a higher muzzle velocity and are capable of automatic fire. Also termed battle rifles.

Body Pistol: Body pistols are manufactured from plastics and cultured bone, making them very difficult to detect using conventional weapons scanners. Body pistols increase the difficulty of Sensors checks to detect them to Very Difficult (–4).

Gauss Rifle: Gauss rifles replace conventional rifles at TL 13. Like the smaller gauss pistol, rifles fire high-velocity projectiles using electromagnetic rails.

Gauss Pistol: Gauss pistols use electromagnetic coils to accelerate metallic darts to hypersonic speeds. Gauss weapons are lightweight, efficient and deadly.

Revolver: A conventional six-shooter handgun. Re-

volvers take two minor actions to reload.

Rifle: Reloading a rifle requires two minor actions.

Shotgun: A shotgun using pellet ammunition ignores Dodge dice modifiers, but Armour gives double protection against pellet attacks. A shotgun can also fire solid slugs, which follow all the normal rules for shooting.

Snub Pistol: These lightweight, low-recoil weapons were designed for use aboard spacecraft and in zero gravity.

Energy Weapons

A laser that hits with Effect 6+ will permanently blind its target unless they are wearing some sort of eye protection.

Laser Carbine: Laser carbines are shorter and lighter than laser rifles, and have a correspondingly shorter range.

Laser Pistol: The TL 9 pistol is bulky, but effective, with no recoil and a large magazine. At TL 11, advances in battery technology and miniaturisation mean that the pistol is no larger than a conventional firearm, but must still be connected to a battery pack for sustained use.

Laser Rifle: Laser rifles are highly accurate at long range. They are powered by heavy backpacks, although they have an internal battery that can store enough energy for six shots for mobile sniping.

Plasma Rifle: TL 16 technology allows the bulky reactor and plasma chamber of the PGMP to be made small enough to fit into a rifle frame. The plasma rifle is a high-power sniper weapon designed to crack Battle Dress. Because of its internal reactor it never runs out of ammunition.

Stunners: Stun weapons are non-lethal and do not inflict normal damage. A character struck by a stun weapon must make an Endurance check with a negative DM equal to the damage (after armour is subtracted). If this Endurance check is failed the character is knocked unconscious. If the Endurance check is successful, the character is unaffected by the weapon and the stun damage is ignored.

Grenades

Aerosol: Aerosol grenades create a fine mist six metres in radius that diffusess lasers but does not block normal vision. Any laser attack made through the mist has its damage reduced by 10. Laser communications through the mist are completely blocked. The mist dissipates in 1d6×3 rounds, although high winds and other extreme weather can sharply reduce this time.

Frag: The damage from fragmentation grenades decreases with distance from the blast:

Distance	Damage
3 metres	5d6
6 metres	3d6
9 metres	1d6

Smoke: Smoke grenades create a thick cloud of smoke six metres in radius, centred on the location of the grenade. This smoke imposes a −2 DM on all attacks within or through the cloud (doubled for laser weapons). Smoke dissipates in 1d6×3 rounds, although high winds and other extreme weather can sharply reduce this time.

Stun: Stun weapons are non-lethal and do not inflict normal damage. A character struck by a stun weapon must make an Endurance check with a negative DM equal to the damage (after armour is subtracted). If this Endurance check is failed the character is knocked unconscious. If the Endurance check is successful, the character is unaffected by the weapon and the stun damage is ignored.

Heavy Weapons

Grenade Launcher: Grenade launchers are used to fire grenades over long distances.

RAM Grenade Launcher: Rocket Assisted Multipurpose grenade launchers have a longer range and are capable of firing up to three grenades with a single attack. This uses the rules for firing on full auto; unlike other weapons with an Auto score, a RAM grenade launcher cannot fire in burst mode. It takes two minor actions to reload a RAM grenade launcher.

Rocket Launcher: To counteract the recoil of the weapon, a rocket launcher channels exhaust backwards in an explosive backblast. Anyone up to 1.5 metres behind a rocket launcher when it fires takes 3d6 damage from the burning gasses. Vehicle-mounted rocket launchers lose this side-effect as a vehicle is a more stable firing platform than a person. It takes three minor actions to reload a rocket launcher.

The rockets presented are high-explosive models. Do not add the Effect of the attack roll to their damage but apply that damage to everything within six metres of the impact point. A rocket that misses has a 50% chance (4+ on 1d6) of detonating upon impact with the ground (6 − Effect metres away in a random direction). Otherwise it will miss completely and leave the battlefield without striking anything or detonating.

PGMP: It is so heavy and bulky that it can only be used easily by a trooper with a Strength of 12 or more – usually attained by wearing battle dress. Every point by which a user's Strength falls short is a −1 DM on any attack rolls made with it.

FGMP: It includes a gravity suspension system to reduce its inertia, making it easier to use than the PGMP (minimum Strength 9) and fires what amounts to a directed nuclear explosion. Those without radiation protection who are nearby when a FGMP is fired will suffer a lethal dose of radiation – each firing of an FGMP emits 2d6×20 rads, which will affect everyone within the immediate vicinity.

Explosives

The Explosives skill is used with explosives – the Effect of the Explosives skill check multiplies the damage, with a minimum of x1 damage for an Effect of 0 or 1.

Plastic: This generic, multi-purpose plastic explosive is a favourite of military units, terrorists, demolition teams and adventurers across known space.

Explosives

Weapon	TL	Damage	Radius	Cost (Cr.)
Plastic	6	3d6	2d6 metres	200
TDX	12	4d6	4d6 metres	1,000
Pocket Nuke	12	2d6×20	15d6 metres	20,000

TDX: An advanced gravity-polarised explosive, TDX explodes only along the horizontal axis.

Pocket Nuke: Hideously illegal on many worlds, the pocket nuke is actually the size of a briefcase and so is too large to fit into a grenade launcher.

Options

Grenade Launcher (TL 8): An underslung RAM grenade launcher can be added to any rifle at the cost of 1,000 Cr. This grenade launcher has a magazine of one grenade, cannot fire on automatic and takes four minor actions to reload.

Laser Sight (TL 8): Integrated optics and laser sights give an extra +1 DM bonus to any attack that has been aimed. Cr 100. At TL 10, x-ray lasers and improved display technology removes the tell-tale 'red dot' of a vislight laser. Cr 200.

Silencer (TL 8): A silencer can be added to any slug thrower with Auto 4 or less, masking the sound produced by firing. (–4 DM to detect.) Cr. 250.

Gyrostabiliser (TL 9): Stabilisers can be added to any weapon with recoil, reducing the recoil by one point at the cost of 300 credits.

Secure Weapon (TL 10): A secure weapon requires authentication in some fashion (scanning the user's DNA or iris patterns, entering a password, transmission of an unlocking code from a comm) before it can be fired. Cr. 100.

Intelligent Weapon (TL 11): This adds Computer/0 to any weapon. Cr 1,000. The TL 13 upgrade adds Computer/1 to any weapon. Cr 5,000.

VEHICLES

All vehicles have the following traits:

TL: The lowest Technology Level that the vehicle is available at.

Skill: What skill is used to drive or pilot the vehicle.

Agility: How easy the vehicle is to drive, expressed as a DM to the pilot's skill check.

Speed: The vehicle's maximum speed.

Crew and Passengers: How many people the vehicle can carry.

Open/Closed: If the vehicle is open or closed.

Armour: How much armour the vehicle has. Damage sustained by a vehicle is reduced by its armour.

Hull/Structure: The number of hits the vehicle can sustain before being disabled.

Weapons: What weapons the vehicle has, if any, and what fire arcs they are in.

Civilian Vehicles

Air/Raft: An open-topped vehicle supported by anti-gravity technology. Air/rafts can even reach orbit but passengers at that altitude must wear vacc suits. They are ubiquitous, remarkably reliable and flexible vehicles.

Ground Car: A conventional wheeled automobile.

Grav Belt: A grav belt resembles a parachute harness, and is fitted with artificial gravity modules allowing the wearer to fly. The internal battery can operate for a maximum of four hours before needing to be recharged. At TL 15, the battery can operate for 12 hours before charging. Options cannot be added to the grav belt.

Grav Floater: A grav floater is a forerunner of the grav belt, a platform upon which a single person can stand and be carried along. It cannot achieve any great speed but can, like an air/raft, achieve any altitude up to orbit.

Military Vehicles

AFV: A heavily armoured ATV, known as an Armoured Fighting Vehicle, equipped with a triple laser turret. The lasers use the Gun Combat (energy rifle) skill, do 4d6 damage each using the Ranged (rifle) range modifiers, and one, two or three may be fired at the same target with one attack action.

ATV: An enclosed, pressurised all-terrain ground vehicle. The vehicle is capable of floating on calm water, and has a suite of built-in sensors and communications equipment (usually a laser transceiver) making it ideal for exploration. An ATV has a hardpoint for a turret, but does not come with a weapon normally.

G/Carrier: A grav carrier is effectively a flying tank, and is the standard fighting vehicle of many military forces. The turret-mounted fusion gun is a vehicle-mounted version of the TL 15 FGMP and uses the same 'serious firepower' rules. Advanced containment systems mean that it does not leak radiation with each shot in the same way as the man-portable version.

Options

With the exception of on-board computer, each of these options can only be taken once on a given vehicle.

Autopilot (TL 11): an autopilot has a Computer/1 specialised to run Intellect/1 and an Expert/1 in an appropriate skill and specialty. This will be in addition to any other computers installed. An autopilot is often mandatory on cheaper commercial models. In many areas (primarily urban) they are required to be in use. Higher Law Level polities may require a slave modification to the autopilot for centralized and/or emergency traffic control. Cr 3,000.

Enclosed: This modification turns an open vehicle

Vehicles

Vehicle	TL	Skill	Agility	Speed	Crew and Passengers	Open/ Closed	Armour	Hull	Structure	Weapons	Cost (Cr.)
Civilian											
Air/Raft	8	Flyer (grav)	+0	400 kph	1 pilot, 3 passengers	Open	6	2	2	None	275,000
Ground Car	5	Drive (wheeled)	+0	150 kph	1 driver, 3 passengers	Closed	6	3	2	None	6,000
Grav Belt	12	Zero-G	+2	300 kph	1 wearer	Open	–	–	–	None	100,000
Grav Floater	11	Flyer (grav)	–2	40 kph	1 rider	Open	–	–	1	None	500
Military											
AFV	12	Drive (tracked)	+0	80 kph	1 driver, 9 passengers	Closed	18	5	5	Triple Laser (turret)	65,000
ATV	12	Drive (tracked)	+0	100 kph	1 driver, 15 passengers	Closed	12	5	5	None	50,000
G/Carrier	15	Flyer (grav)	+0	620 kph	1 driver, 1 gunner, 14 passengers	Closed	25	8	8	Fusion Gun (turret)	MCr. 15

into a closed one. It costs 10% of the base cost of the vehicle, reduces Agility by 1 and top speed by 10%.

Extended Life Support: A vehicle which is sealed can be equipped for extended life support, which increases the duration to 18 hours per person. Costs another 10% of the base cost of the vehicle.

Heavy Armour: Increasing the armour of a vehicle by 5 adds 25% to the cost of the vehicle.

High Performance: A vehicle can be made into a high-performance vehicle, increasing its top speed by 20%. The vehicle costs 50% more.

On-board Computer: Adding an on-board computer costs the same as a hand computer.

Sealed: This option can be added to any closed vehicle (it is included in the ATV, AFV and G/Carrier). The vehicle can be sealed and provides life support for its passengers and crew for two hours per person. This option adds 20% to the cost of the vehicle.

Style: Allows a vehicle to be customised to the buyer's wishes. Costs Cr 200 to Cr 2,000.

SPACECRAFT DESIGN

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 small craft and ships which do not have Jump drives..

THE HULL

Hull	Hull Code	Price (MegaCredits)
100 tons	1	2
200 tons	2	8
300 tons	3	12
400 tons	4	16
500 tons	5	32
600 tons	6	48
700 tons	7	64
800 tons	8	80
900 tons	9	90
1,000 tons	A	100
1,200 tons	C	120
1,400 tons	E	140
1,600 tons	G	160
1,800 tons	J	180
2,000 tons	L	200

Configuration

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

Streamlining a ship increases the cost of the hull by 10%. This streamlining includes fuel scoops which allow the skimming of unrefined fuel from gas giants or the gathering of water from open lakes or oceans. Streamlining may not be retrofitted; it must be included at the time of construction.

A distributed ship reduces the cost of its hull by 10%. It is completely non-aerodynamic and if it enters an atmosphere or strong gravity it will fall to the surface of the planet. It cannot mount fuel scoops.

A standard-hull ship may still enter atmosphere but is very ungainly and ponderous, capable only of making a controlled glide to the surface. Getting it back into space requires an elaborate launch setup and considerable ex-

pense. A standard-hull ship may have scoops for gathering fuel from a gas giant but the process will be much more difficult and less efficient. Larger ships of this type will often carry a specialized sub-craft to perform the actual atmospheric skimming.

Armour

Armour is added in 5% increments of the ship's tonnage.

Armour Type	TL	Protection	Cost
Titanium Steel	7	2 per 5%	5% of base hull
Crystaliron	10	4 per 5%	20% of base hull
Bonded Superdense	14	6 per 5%	50% of base hull

For example, a heavily armoured warship might take Bonded Superdense armour twice. This would take up 10% of the hull's volume and cost 100% of the base cost of the hull, but give 12 points of armour.

Options

Reflec (TL 10): Reflec coating on the hull increases the ship's armour against lasers by 3. Adding Reflec costs 0.1 Megacredits per ton of hull and can only be added once.

Self-Sealing (TL 9): A self-sealing hull automatically repairs minor breaches such as micrometeoroid impacts, and prevents hull hits from leading to explosive decompression. It costs 0.01 Megacredits per ton of hull.

Stealth (TL 11): A stealth coating absorbs radar and lidar beams, and also disguises heat emissions. This gives a –4 DM on any Sensors rolls to detect or lock onto the ship. Adding Stealth costs 0.1 Megacredits per ton of hull, and can only be added once.

Hull and Structure

Initial damage is applied to the Hull; once the Hull is breached, further damage goes to the Structure. When all Structure Points have been lost, the ship has been smashed to pieces. A ship has one Hull Point and one Structure Point per 50 tons of displacement.

Performance by Hull Volume Table

	100	200	300	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000
A	2	1	–	–	–	–	–	–	–	–	–	–	–	–	–
B	4	2	1	1	–	–	–	–	–	–	–	–	–	–	–
C	6	3	2	1	1	1	–	–	–	–	–	–	–	–	–
D	–	4	2	2	1	1	1	1	–	–	–	–	–	–	–
E	–	5	3	2	2	1	1	1	1	1	–	–	–	–	–
F	–	6	4	3	2	2	1	1	1	1	1	–	–	–	–
G	–	–	4	3	2	2	2	2	1	1	1	1	–	–	–
H	–	–	5	4	3	2	2	2	2	2	1	1	1	–	–
J	–	–	6	4	3	3	2	2	2	2	2	1	1	1	–
K	–	–	–	5	4	3	3	3	2	2	2	2	1	1	1
L	–	–	–	5	4	3	3	3	3	3	2	2	2	1	1
M	–	–	–	6	4	4	3	3	3	3	3	2	2	2	1
N	–	–	–	6	5	4	4	4	3	3	3	3	2	2	2
P	–	–	–	–	5	4	4	4	4	4	3	3	3	2	2
Q	–	–	–	–	6	5	4	4	4	4	4	3	3	3	2
R	–	–	–	–	6	5	5	5	4	4	4	4	3	3	3
S	–	–	–	–	6	5	5	5	5	5	4	4	4	3	3
T	–	–	–	–	–	6	5	5	5	5	5	4	4	4	3
U	–	–	–	–	–	6	6	5	5	5	5	4	4	4	4
V	–	–	–	–	–	6	6	6	5	5	5	5	4	4	4
W	–	–	–	–	–	–	6	6	6	5	5	5	4	4	4
X	–	–	–	–	–	–	6	6	6	6	5	5	5	4	4
Y	–	–	–	–	–	–	6	6	6	6	5	5	5	4	4
Z	–	–	–	–	–	–	6	6	6	6	6	5	5	5	4

THE ENGINEERING SECTION

- A non-starship must have a manoeuvre drive and a power plant.
- A starship must have a Jump drive and a power plant; a manoeuvre drive may also be installed, but is not required.
- For manoeuvre drives, the potential is the Thrust number (Tn), which is the number of Gs acceleration available.
- For Jump drives, the potential is the Jump number (Jn), or Jump range in parsecs.

The power plant rating (A-Z) must be at least equal to either the manoeuvre drive or Jump drive rating, whichever is higher.

Fuel

Fuel needed for a Jump depends on the size of the ship and the length of the Jump and is calculated as $0.1 \times$ tonnage $\times$ Jump distance. A single Jump of that distance consumes that much fuel.

The amount of fuel required by the power plant depends on the rating of the power plant. The fuel amounts listed will power the ship for two weeks, which is the bare minimum for a Jump-capable starship.

Drive Costs

Drive Code	J-Drive Tons	J-Drive MCr	M-Drive Tons	M-Drive MCr	P-Drive Tons	P-Drive MCr
A	10	10	2	4	4	8
B	15	20	3	8	7	16
C	20	30	5	12	10	24
D	25	40	7	16	13	32
E	30	50	9	20	16	40
F	35	60	11	24	19	48
G	40	70	13	28	22	56
H	45	80	15	32	25	64
J	50	90	17	36	28	72
K	55	100	19	40	31	80
L	60	110	21	44	34	88
M	65	120	23	48	37	96
N	70	130	25	52	40	104
P	75	140	27	56	43	112
Q	80	150	29	60	46	120
R	85	160	31	64	49	128
S	90	170	33	68	52	136
T	95	180	35	72	55	144
U	100	190	37	76	58	152
V	105	200	39	80	61	160
W	110	210	41	84	64	168
X	115	220	43	88	67	176
Y	120	230	45	92	70	182
Z	125	240	47	96	73	192

THE MAIN COMPARTMENT

The ship's main compartment contains all non-drive features of the ship, including the bridge, ship's computer, the staterooms, the low passage berths, the cargo hold and other items.

Bridge

The size of the bridge varies depending on the size of the ship:

Ship Size	Bridge Size
200 tons or less	10 tons
300 tons – 1000 tons	20 tons
1,100 – 2000 tons	40 tons
More than 2,000 tons	60 tons

The cost for this bridge is MCr. 0.5 per 100 tons of ship.

Computer

The computer is identified by its model number; the computer table indicates details of price, capacity, and tech level available.

Computer	TL	Rating	Cost
Model 1	7	5	Cr. 30,000
Model 2	9	10	Cr. 160,000
Model 3	11	15	MCr. 2
Model 4	12	20	MCr. 5
Model 5	13	25	MCr. 10
Model 6	14	30	MCr. 20
Model 7	15	35	MCr. 30

Options

Jump Control Specialisation (bis): A computer's rating can be increased by 5 for the purposes of running Jump Control programs only. This increases the computer's cost by 50%.

Hardened Systems (fib): A computer and its connections can be hardened against attack by electromagnetic pulse weapons. A hardened system is immune to EMP, but costs 50% more.

Both options can be applied to the same computer by doubling its cost (+100%).

Electronics

A ship comes with a basic communications, sensor and emissions-control electronics suite, but more advanced systems can be installed. The Dice Modifier applies to jamming and counter-jamming attempts.

Staterooms

Each stateroom is sufficient for one person, displaces 4 tons, and costs Cr. 500,000. No stateroom can contain more than two persons, as it would strain the ship's life support equipment. The tonnage and cost of the staterooms includes the life support systems needed to keep the crew alive.

Low Passage Berths

One low passage berth carries one low passenger, costs Cr. 50,000, and displaces one-half ton.

Emergency low berths are also available; they will not carry passengers, but can be used for survival. Each costs Cr. 100,000 and displaces one ton. Each holds four persons.

Cargo Hold

The design plan must indicate cargo capacity. There is no cost but cargo carried may not exceed cargo capacity. Any space left over after all systems have been installed may be allocated to cargo space.

Fuel Scoops

Fuel scoops allow an unstreamlined ship to gather unrefined fuel from a gas giant. Streamlined ships have fuel scoops built in. Adding scoops costs Cr. 1,000,000 and requires no tonnage.

Fuel Processors

Fuel processors convert unrefined fuel into refined fuel. One ton of fuel processors can convert 20 tons of unrefined hydrogen into refined fuel per day. A ton of fuel processing equipment costs Cr 50,000.

Luxuries

Luxuries cost Cr. 100,000 per ton, and make life on board ship more pleasant. Each ton of luxuries counts as one level of the Steward skill for the purposes of carrying passengers, and therefore allows a ship to carry middle and high passage passengers without carrying a trained steward on board.

Electronic Table

System	TL	DM	Includes	Tons	Cost
Standard	8	–4	Radar, Lidar	Included in bridge	Included in bridge
Basic Civilian	9	–2	Radar, Lidar	1	Cr. 50,000
Basic Military	10	+0	Radar, Lidar, Jammers	2	MCr. 1
Advanced	11	+1	Radar, Lidar, Densitometer, Jammers	3	MCr. 2
Very Advanced	12	+2	Radar, Lidar, Densitometer, Jammers, Neural Activity Sensor	5	MCr. 4

Ship's Locker

Every ship has a ship's locker. Typical equipment carried aboard will include protective clothing, vacc suits, weapons such as shotguns or pistols, ammunition, compasses and survival aids, and portable shelters. The contents of the locker are defined only when they need to be but always contains vacc suits and other useful items. The ship's locker is usually protected by a biometric lock keyed to the ship's officers.

Vehicles and Drones

The tonnage and cost covers minimal hangar space, indicating the vehicle is either carried on the outer hull or in a form-fitting compartment on board. For ease of access and for storage of spare parts and equipment, many ships will allocate more space to some vehicles.

Mining Drones: Mining drones allow a ship to mine asteroids. Each set of mining drones takes up ten tons, and allows the ship to process $1d6 \times 10$ tons of asteroid per working day. The tonnage allocated includes ore handling machinery, allowing the ship to take on ore and transfer it to the cargo bay.

Repair Drones: Carrying repair drones allows a ship to make battlefield repairs with the AutoRepair software or when managed by a character with Mechanic or Engineer skills. Repair drones have the same statistics as repair robots only without an Intellect program.

Probe Drones: Probe drones are for surveying planetary surfaces. Each ton of probe drones contains five drones. Probe drones 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. They can also be used as communications relays.

Escape Pods: This covers the installation of rescue bubbles and other escape pods for the entire crew.

Life Boat, Ship's Boat, Shuttle, Pinnace, Cutter: These are all small craft, hangared either in or on the ship's hull.

Air/Raft, ATV: These are vehicles, also stored in or on the ship.

ARMAMENTS

A ship has one hardpoint per 100 tons of ship and each weapon system takes up one hardpoint. A weapon system may include multiple weapons – for example, a triple turret contains three lasers, missile launchers, sandcasters or some combination of three weapons.

Turrets

One turret may be attached to each hardpoint on the ship. If a turret is installed, then one ton of space must be allocated to fire control systems:

Weapon	TL	Tons	Cost (MCr.)
Single Turret	7	1	0.2
Double Turret	8	1	0.5
Triple Turret	9	1	1
Pop-Up Turret	10	2	+1
Fixed Mounting	–	0	×0.5

Single, Double and Triple turrets can hold one, two or three weapons.

Pop-Up is a quality that can be applied to any type of turret – the turret is concealed in a pod or recess on the hull, and is detectable only when deployed. A ship with all its weapons in pop-up turrets looks unarmed to a casual sensor scan.

Fixed Mounting weapons cannot move, are limited to firing in one direction (normally straight ahead), and are found mainly on fighters. A fixed mounting costs half as much as a turret of the same type, so a single fixed mounting costs 0.1 MCr., a double fixed mounting costs 0.25 MCr., and a triple fixed mounting costs 0.5 MCr.

Missile racks need ammunition – twelve missiles take up one ton of space.

A sandcaster reduces the damage from a beam weapon by 1d6. Sandcasters require ammunition. Twenty sandcaster barrels take up one ton of space, and cost 10,000 credits.

Bays

Bay weapons are much larger than turrets, and take up 50 tons of space and one hard point, as well as one ton of space for fire control.

Missile banks fire flights of twelve missiles at a time.

Meson weapons are unaffected by armour, as the blast only becomes harmful after it has already passed through the hull. Meson guns also inflict an automatic radiation hit on the crew of any target struck.

Screens

Screens are defensive systems that protect against specific attacks.

A nuclear damper reduces the damage from fusion weapons and nuclear missiles by 2d6 when affected.

Meson screens block attacks from meson weapons by preventing meson decay.

Turret Weapons

Weapon	TL	Optimum Range	Damage	Cost (MCr.)
Pulse Laser	7	Short	1d6	0.5
Beam Laser	7	Medium	2d6	1
Particle Beam	8	Long	3d6 + crew hit	4
Missile Rack	6	Special	Depends on missile	0.75
Sandcaster	7	Special	Special	0.25

Bay Weapons

Weapon	TL	Range	Damage	Cost (MCr.)
Missile Bank	6	Special	Launches a flight of twelve missiles	12
Particle Beam	8	Long	6d6 + crew hit	20
Fusion Gun	12	Medium	5d6	8
Meson Gun	11	Long	5d6 + crew hit	50

Screen Table

Screen	TL	Effect	Tons	Cost (MCr.)
Nuclear Damper	12	Reduces fusion gun and nuclear missile damage by 2d6, removes automatic crew hit from nuclear missile attacks	50	50
Meson Screen	12	Protects against meson weapon damage, reducing damage by 2d6	50	60

SPACECRAFT OPERATIONS

AIRLOCKS

A ship has at least one airlock per 100 tons. The average airlock is large enough for three people in vacc suits to pass through at the same time. An airlock takes ten seconds to cycle. Under normal circumstances, airlocks are locked down from the bridge and require a Very Difficult (–4) Engineer (electronics) check to override. An unlocked airlock can be triggered from outside. Airlocks generally have vacc suits, rescue bubbles and cutlasses in a ship's locker nearby.

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

ATMOSPHERIC OPERATIONS

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

A standard-configuration ship can also enter a planet's atmosphere, but is reliant on its thrusters to keep it aloft at all times and is extremely ungainly. Pilot checks are required for all movement and suffer a –2 DM.

A distributed ship must make a Pilot check at a –4 DM when it enters an atmosphere and for every minute of flight. Each check that is failed inflicts 2d6 points of damage.

BOARDING, DOCKING AND LANDING

Landing: Any ship with a standard or streamlined hull may land on the surface. Unstreamlined ships suffer a –2 DM to any Pilot checks made in atmosphere while a ship with a Distributed hull suffers a –4 DM to any Pilot checks, and is likely to take severe structural damage if it lands. Landing at a starport is a Routine (+2) task for most ships taking 10–60 seconds.

Most ships have landing gear, allowing them to touch down 'in the wild', which requires an Average (+0), Difficult (–2) or even Very Difficult (–4) check, depending on local conditions. Non-distributed ships can also land on bodies of water without sinking. Failing a landing roll means that 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 is a Routine (+2) Pilot task taking 1–6 minutes. If one ship is drifting or unpowered, the difficulty rises to Difficult (–2).

Boarding: Hostile boarding actions are safest when the enemy ship is crippled, in which case it is a standard docking procedure. If the enemy ship is still moving, then the prospective boarders must match the target's velocity and dock with it (a Difficult (–2) Pilot task), or else just land on the hull and either make their way to an airlock or cut through from outside.

COSTS AND MAINTENANCE

Mortgage or Debts: If the crew are paying off debts on their spacecraft, then these debts must be paid each month. The standard terms for a ship mortgage is paying 1/240th of the cash price each month for 480 months (40 years). In effect, interest and bank financing cost a simple 120% of the final cost of the ship, and the total financed price equals 220% of the cash purchase price. Ship shares are treated as reducing the cash price of the ship, and so reduce the monthly cash payments.

Life Support and Supplies: Each stateroom on a ship costs Cr. 2,000 per month, occupied or not. 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 low passage berth costs Cr. 100 per month.

Fuel: Fuel costs Cr. 500/ton for refined fuel, or Cr. 100/ton for unrefined fuel.

Repairs and Maintenance: A ship needs maintenance, which costs 0.1% (1/1000th) of the total cost of the ship per year and requires a shipyard. Maintenance should be carried out each month. If maintenance is skipped or skimped on, roll 2d6 each month, with a +DM equal to the number of months skipped. On an 8+, the ship takes damage to a random system. Roll on the system degradation table for the number of hits.

Repair supplies cost Cr. 10,000/ton.

System Degradation

Roll	Number of Hits
1–3	1
4–5	2
6	3

Crew Salaries: Hired crew members must be paid each month.

Berthing Costs: Landing at a starport incurs a cost, which varies wildly from world to world.

Item	Monthly Cost (Cr.)
Mortgage or Debts	Varies
Life Support	2,000 per stateroom (3,000 for double occupancy)
	100 per low berth
Fuel	500 per ton of refined fuel
	100 per ton of unrefined fuel
Maintenance	1/12 of 0.1% of ship's purchase price/month
Crew Salaries:	
Pilot	6,000
Navigator	5,000
Engineer	4,000
Steward	2,000
Medic	4,000
Gunner	2,000
Marine	2,000

FUEL

Hydrogen is obtained from water or from the atmospheres of gas giants, and refined fuel costs Cr. 500 per ton. Some out-of-the-way places only offer unrefined fuel for only Cr. 100 per ton.

A ship with fuel scoops may gather fuel from bodies of water using hoses. It may also scoop hydrogen from a gas giant. Scooping takes 1–6 hours. Fuel gathered 'in the wild' is unrefined, but a ship with fuel processors may refine it.

JUMP TRAVEL

A ship can only safely Jump when it is more than one hundred diameters distant from any object. Gravity can cause a Jump bubble to collapse prematurely, bringing a ship back into normal space early.

Preparing for Jump

To Jump, the following procedures must be followed:

- **Astrogation:** The Jump needs to be plotted. This is an Easy (+4) Education-based Astrogation check taking 10–60 minutes, modified by the Jump distance (thus, a Jump–4 gives a –4 DM to the check). If the check is failed, then the astrogator must plot the Jump again. A Jump cannot be made until the astrogation calculations are complete. Astrogation can be done in advance.
- **Divert Power:** Firing the Jump drive is an Average (+0) Education-based Engineer (Jump drive) check taking 10–60 seconds. The Effect of this check aids the Jump roll.
- **Jump!:** Roll 2d6 and add the following DMs. If the result is 0 or less, the ship misjumps (see below). If the result is 8+ the Jump is accurate. Any other result is an inaccurate Jump.
  - • + the Effect of the divert power Engineer check
  - • –2 per Jump drive hit
  - • –2 for using Unrefined fuel
  - • –8 if still within the hundred-diameter limit

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 and fuel expenditure. Regardless of how far the ship Jumps, it always stays in Jump Space for roughly one week (148+6d6 hours).

Misjumps

A merciful Referee may wish to subject his players to the most survivable form of misjump, where the ship ends up 1d6×1d6 parsecs in a random direction.

LIFE SUPPORT
Radiation

Radiation exposure is measured in rads. Once a character has absorbed a certain number of rads, he will suffer certain effects. One problem with radiation exposure is that while physical symptoms can be treated and may heal, the radiation never goes away. The character's rads must be tracked. Further exposure adds to what the character is already carrying around until a deadly level is reached. Accumulated rads can be removed using anti-rad drugs.

Radiation Exposure

Characters exposed to a radiation weapon 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.

Suffocation

A spacecraft with power can sustain life support for one person per stateroom for one month comfortably, and for six months at a stretch (number of staterooms×5,000 person/hours). Without power, this drops to two weeks at most.

Without life support, a character begins to suffocate, suffering 1d6 damage each minute. A character who is utterly without air (such as one who is being smothered or strangled, or who has been dumped out an airlock) suffers 1d6 damage each round instead.

PASSAGE

Passenger travel has been standardised into four overarching categories – high, middle, working and low.

High Passage: The passenger receives a stateroom and one ton of cargo space for baggage, and can expect

high-quality entertainment. Each level of Steward skill (including level 0) allows the steward to effectively look after two high passage passengers on board a ship (so a character with Steward 2 could care for six passengers).

Middle Passage: Each level of the Steward skill (including level 0) allows the steward to care for five middle passengers. A baggage allowance of 100 kg is permitted.

Working Passage: This is identical to middle passage but the passenger pays his way by serving on board ship in some capacity.

Low Passage: There is some danger to the passenger – a Medic check is required upon opening the capsule, applying the passenger's Endurance DM to the check. If failed, the passenger does not survive. Low passage costs includes a 10 kg baggage allowance; many commercial cryoberth units have a built-in baggage compartment.

The price of passage varies depending on how far you want to go:

Parsecs Travelled	High	Middle	Low
1	Cr. 6,000	Cr. 3,000	Cr. 1,000
2	Cr. 12,000	Cr. 6,000	Cr. 1,200
3	Cr. 20,000	Cr. 10,000	Cr. 1,400
4	Cr. 30,000	Cr. 15,000	Cr. 1,600
5	Cr. 40,000	Cr. 20,000	Cr. 1,800
6	Cr. 50,000	Cr. 25,000	Cr. 2,000

REPAIRS

Damage to a ship falls into three categories – Hull Damage, Structure Damage and System Damage.

A destroyed system costs 2d6×10% of its original cost to repair, and cannot be repaired using spare parts.

Hull Damage: Hull damage can be repaired with a Mechanic check taking 1–6 hours, and consumes one ton of spare parts.

Structure Damage: Structure damage can only be repaired at a shipyard, and requires 1–6 weeks per point of damage. It costs 500,000 Credits per point.

System Damage: A damaged system can be jury-rigged back to functioning, but it will stop functioning again after 1d6 hours. Repairing a damaged system requires not only an Average skill check (Mechanic, Engineer (appropriate speciality) or Science (appropriate speciality)) taking 1–6 hours but also spare parts. The Effect of the check determines how many spare parts are required. Spare parts can be purchased at the cost of Cr. 10,000 per ton.

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

SPACECRAFT SECURITY

Sensors

Visual sensors are electronically-enhanced telescopes. Thermal sensors pick up heat emissions.

EM sensors detect power flows and transmissions.

Radar/Lidar detects physical objects. It can be active or passive. If a ship is using active sensors, it is easier to detect (+2 DM to Sensors checks) but detects more about its surroundings.

NAS detects neural activity and intelligence.

Densitometers can determine the internal structure and makeup of an object.

Security Systems

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 marines. Some vessels will 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 a character's Zero-G skill. Gravity can also safely be increased up to 3G.

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 Endurance check each round, with a –1 DM per previous check. Any character who fails the Endurance check is knocked unconscious.

Venting Atmosphere: If a compartment is connected to an airlock, then the air can be vented from that area. Characters in that area must make a Strength check to hang on and will also begin to suffocate.

SPACE COMBAT

Each turn in space combat lasts six minutes.

If two vessels randomly encounter each other while travelling, the encounter will begin at Very Long range. More often, ships engage near a planet, where the range is Short or Medium.

STARTING AN ENGAGEMENT
Crew Positions

At the start of an engagement, all crew must be assigned to a position on board ship. There can be only one pilot, but other than that, any number of people can occupy the same position.

- **Pilot:** Flies the ship, responsible for changing course and for evasive manoeuvres.
- **Captain:** Commands the ship, and can use Leadership and Tactics skills.
- **Drive Engineer:** An engineer can be assigned to each of the M-drive and the J-drive.
- **Turret Gunner:** Each turret has its own gunner. A character must choose which turret he is manning at the start of the combat.

- **Bay Gunner:** Each bay weapon has its own gunner.
- **Damage Control:** A character assigned to free-floating damage control can repair any system.
- **Marine:** Prepares to repel boarders, or to board enemy ships.
- **Passenger:** Passengers are all people aboard ship who are not assigned a position and are assumed to be waiting in staterooms.

Automated Positions

The ship's computer can cover several positions if it is running the appropriate software:

- Fire Control programs can either act gunners or aid existing gunners.
- A ship equipped with repair drones and Auto-Repair software acts as damage control.
- A ship running an Intellect program and Expert Pilot can be the pilot.
- A ship equipped with repair drones and running an Intellect program and Expert Engineer (M-drive or J-drive) can be a drive engineer.

Range Table

Range	Distance	Thrust to Change	Example
Adjacent	<1 km	1	Docked ships
Close	1 to 10 km	1	Nearby vessels
Short	10 to 1250 km	2	Ships in same orbital path
Medium	1250 to 10,000 km	5	Surface to orbit
Long	10,000 km to 25,000 km	10	Near a planet
Very Long	25,000 km to 50,000 km	25	Within jump limit
Distant	50,000 km+	50	Distant ships

Weapon Range Modifiers

Weapon	Adjacent	Close	Short	Medium	Long	Very Long	Distant
Lasers							
Pulse Laser	-1	-1	+0	-1	-2	-3	Out of range
Beam Laser	-2	-1	-1	+0	-1	-1	-2
Particle Beam	-3	-2	-1	-1	+0	-1	-1
Fusion Gun	-2	-2	-1	+0	-1	-1	-2
Meson Gun	-4	-3	-2	-1	+0	-1	-2
Missiles (flight time)	–	–	1	1	2	5	10
Sandcaster	-2	+0	-2	Out of range	Out of range	Out of range	Out of range

INITIATIVE

Each ship in an engagement rolls 2d6 to determine their starting Initiative score. The ship with a greater Thrust score gains a +1 DM to its roll.

The commander of each spacecraft (or each fleet, if more than one ship is involved on each side) may a Tactics (naval) check. The Effect is added to the Initiative of the spacecraft (or fleet).

MANOEUVRE PHASE

In each manoeuvre phase, a ship can allocate Thrust either to movement (closing or increasing the range to a target) or manoeuvring. The amount of thrust needed to close or open by one range category is given in the Range Table – the number given is the amount of thrust needed to move from that range category to either a closer or more distant one. A ship can spend thrust over multiple rounds to close or open a range category.

If two ships are travelling towards each other, then add together the Thrust allocated by both ships to movement to see how close they are to changing range categories; if one ship is trying to escape from the other then subtract the lower Thrust from the higher value to work out the effective change in position – the faster ship will either gain slightly or pull away slightly.

Any thrust not allocated to movement is allocated to manoeuvring, which is done in the combat phase. Manoeuvring does not change the range to the target but allows the ship to position itself better for an attack or to avoid incoming fire.

COMBAT PHASE

In each combat phase, a ship may manoeuvre, fire any of its weapons, or board enemy vessels.

Manoeuvre

A ship can manoeuvre, dodging and weaving to evade enemy fire or to position itself for a better attack. A ship may make a number of manoeuvre actions per combat phase equal to the amount of Thrust allocated to manoeuvring.

A manoeuvre action can be used to:

- **Dock with another vessel:** The pilot must make a successful Pilot check. If the other ship does not wish to be docked with then make opposed Pilot checks; the ship trying to dock suffers a –2 DM. When docked, boarding actions can take place.
- **Help line up a shot:** A pilot may attempt to aid his gunners by providing a stable firing platform along an optimum attack vector. The pilot makes a Pilot check to aid his gunners as per the normal rules on task chains.
- **Dodge incoming fire:** Any leftover Thrust can be spent as a reaction to dodge incoming fire.

Firing Beam Weapons

To fire a beam weapon, the gunner must make a successful Gunner (turret) or Gunner (capital weapons) check, modified by the range to the target. When targeted by a beam weapon, the enemy ship may react by dodging, firing sand or triggering screens (see Reactions). A gunner may fire any or all of the weapons in his turret or bay but each turret or bay may only fire once per round.

If the attack is successful it will inflict damage. Damage is resolved after all attacks have been made in a round.

Launching Missiles

Unlike beam weapons, which travel at the speed of light and so hit the enemy vessel almost instantly, missile weapons take time to cross the gulf of space. Missiles travel at Thrust 5 towards their designated target and their position can either be tracked as additional craft in the battle or, for the sake of simplicity, they can be assumed to strike after a number of turns dependent on launch range:

Range	Turns to Impact
Adjacent	–
Close	–
Short	1
Medium	1
Long	2
Very Long	5
Distant	10

Missiles cannot be used at Adjacent or Close range.

The gunner must make a Gunner (turret) or Gunner (capital weapons) check to determine how accurate the missile launch was. The effect of the Gunner check determines the chance that the missile will strike its target when it hits.

Gunnery check	Missile to-hit roll
Failed With Effect –6 or less	11+
Failed With Effect –2 to –5	10+
Failed With Effect –1	9+
Succeeded With Effect 0	8+
Succeeded With Effect 1–5	7+
Succeeded With Effect 6+	6+

A target may react to incoming missiles by dodging or point defence. This reaction does not take place until the turn the missiles arrive at their destination, so any manoeuvring or shooting must wait until then.

Smart Missiles

The missile to-hit roll for smart missiles is always 8+ and if they miss they make another attack every turn until they are destroyed with point defence, jammed with ECM or otherwise dissuaded.

Boarding Actions

If two ships are Adjacent or docked, then a boarding action can be attempted. If the ships are docked, then the attackers may cross over safely via airlocks. If the ships are merely adjacent, then the attackers must use thruster

packs or small craft to cross over. While crossing, the attackers may be attacked with point defence weapons or by firing sand.

Once across, boarding actions can be resolved using the personal combat rules or the quick boarding rules.

Special Attacks

Several types of weapons have their own rules.

- **Meson Guns:** Meson guns ignore armour and always roll on the Internal Damage table. Furthermore, they also automatically inflict a radiation crew hit in addition to any other damage.
- **Fusion Guns:** Fusion guns inflict a radiation crew hit in addition to any other damage. The bonus radiation hit suffers a –DM equal to the ship's armour.
- **Particle Beams:** Particle beams inflict a radiation crew hit in addition to any other damage. The bonus radiation hit suffers a –DM equal to the ship's armour.
- **Nuclear Missiles:** Nuclear missile hits inflict a radiation crew hit in addition to their normal damage. The bonus radiation hit suffers a –DM equal to the ship's armour.
- **Sandcasters:** While the primary purpose of a sandcaster is to block incoming beam attacks, they can also be used as an attack. A sandcaster has a range of Close and inflicts 1 damage.

REACTIONS

A ship may react to incoming attacks. The following situations allow reactions:

- Targeted by a beam attack
- Incoming missile
- Attempted boarding

The ship's Initiative determines how many times it may react in a round.

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

Dodge

Each dodge reaction counts as a manoeuvre and so is limited by the amount of Thrust allocated to manoeuvres. One point of Thrust allows a single dodge. To dodge, the pilot must make a Pilot check. If successful, the attack suffers a –2 DM.

Point Defence

Turret lasers can be used to destroy incoming missiles. The missiles can only be destroyed in the moments before they strike the spacecraft as they are too small and fast-moving to effectively target at greater ranges. The gunner must make a Gunner (turrets) check against the missile. If successful, the missile is destroyed. A gunner may keep making Gunner checks against missiles until he misses an attack; each attack suffers a cumulative –1 penalty. Attacks may be directed against different incoming missiles.

Point defence can also be used to destroy incoming boarders in the same way.

Fire Sand

Turrets equipped with sandcasters can fire sand at incoming beam attacks. Each reaction spent on firing sand allows the gunner to make a Gunner (turrets) roll. If successful the damage of each beam in the incoming attack is reduced by 1d6. Resolve each beam separately. Each firing of sand costs one canister of sand.

Sand can also be directed against incoming boarding parties. If the sand attack is successful, each target in the boarding party takes 8d6 damage.

Trigger Screens

Screens can be activated as long as the commander or one of the gunners has the Gunner (screens) skill at Level 0 and the ship has the required screen type (nuclear against nuclear missiles and fusion guns; meson against meson guns). Screens reduce the damage from the attack by 2d6+the operator's Gunnery (screens) skill. Nuclear dampers also negate radiation hits against crew from nuclear missiles and fusion guns.

SHIP ACTION PHASE

In each ship action phase, a ship may take one ship action. Ship actions are wholly internal to the ship.

Repair Damaged System

A character on damage control may attempt to repair a damaged system by making an Education-based Mechanic check. If the check is successful, determine how many hits are repaired:

Mechanic Check Effect	Hits Repaired
0	1
1–5	2
6+	3

A ship with repair drones and the Auto-Repair software also makes one or two repair checks in the ship action phase (unless it is being used to assist other repair attempts). The standard Auto-Repair software makes the check with a +1 DM.

These are battlefield repairs only and will break down as soon as the battle is over unless repaired properly.

Sensor Lock

A ship's sensors operator may make an Education-based Sensors check to establish a lock on an enemy vessel. Attacks made against a vessel that has been locked onto gain a +1 DM. When using missiles the initial Gunner check gets this bonus – the individual missile to hit rolls do not benefit directly. Smart missiles are unaffected.

Electronic Warfare

A ship's sensors operator may attempt to jam radio communications and sensor locks by making an opposed Intelligence-based Sensors check against the sensors operator of the opposing vessel. Electronic warfare can be used to break sensor locks.

Alternatively, electronic warfare can be used to attack smart missiles that are targeting the ship. The sensors operator makes a Difficult (–2) Sensors check and, if successful, a single attacking smart missile ceases attacking. The sensors operator may continue making checks to disable smart missiles until he fails one, with a cumulative –1 DM each time.

Increase Initiative

The commander of a spacecraft may make a Leadership check and increase the Initiative of his spacecraft by the Effect of the check. This increase only applies for the following round.

Change Positions

Any characters not doing anything else may elect to swap positions during the ship action phase. As of the next round they are considered to be manning their new position rather than their previous one.

DAMAGE

Systems can take a variable number of hits before being destroyed, depending on the system in question. A ship can endure one Hull damage per fifty tons, rounding down. A ship that runs out of Hull Damage will rapidly be incapacitated. A ship can endure one Structure damage per fifty tons, rounding down to a minimum of one. A ship that runs out of Structure breaks up and is completely destroyed.

The effects of damage are determined by subtracting the ship's armour from the damage rolled by the weapon, then consulting the damage table to determine the number of hits inflicted. Then roll on the Location table for each hit.

A double hit applies two hits to the same location. A triple hit applies three hits to the same location.

Hull

Reduce the ship's Hull by one. If a ship's Hull is 0, then apply the hits to the location in the same row of the Internal Damage table.

Structure

Reduce the ship's Structure by one. If a ship's Structure is reduced to 0, the ship is destroyed.

Armour

Reduce the ship's armour by one. If the ship's armour is already 0, then this counts as a Hull hit.

Damage	Effect
0 or less	No damage
1–4	Single Hit
5–8	Two Single Hits
9–12	Double Hit
13–16	Three Single Hits
17–20	Two Single Hits, Double Hit
21–24	Two Double Hits
25–28	Triple Hit
29–32	Triple Hit, Single Hit
33–36	Triple Hit, Double Hit
37–40	Triple Hit, Double Hit, Single Hit
41–44	Two Triple Hits
For every extra three points	+1 Single Hit
For every extra six points	+1 Double Hit

Turret

A random turret is hit.

First Hit: The turret's tracking mechanism is damaged. It can still be used, but all attacks suffer a –2 DM.

Second Hit: The turret and all weapons in it are disabled.

Third Hit: The turret and all weapons in it are destroyed.

Subsequent Hits: Count as Hull hits.

Bay

A random bay is hit.

First Hit: The bay's targeting mechanism is damaged. It can still be used, but all attacks suffer a –2 DM.

Second Hit: The bay weapon is disabled.

Third Hit: The bay weapon is destroyed.

Subsequent Hits: Count as Structure hits.

J-Drive

The Jump drive is hit.

First Hit: All attempts at Jump suffer a –2 DM to Engineering (jump) checks.

Second Hit: The jump drive is disabled.

Third Hit: The jump drive is destroyed.

Subsequent Hits: Count as Structure hits.

M-Drive

The manoeuvre drive is hit.

First Hit: Reduce the ship's thrust by one.

Second Hit: Reduce the ship's thrust by 50%.

Third Hit: The drive is disabled.

Subsequent Hits: Count as Hull hits.

Power Plant

The power plant is hit.

First Hit: Damaged.

Second Hit: The crew suffer a Crew Hit, rolling on the Radiation Damage column.

Third Hit: The Power Plant is destroyed and the ship is disabled.

    Subsequent Hits: Count as Structure Hits.

Sensors

The sensors are hit.

First Hit: –2 DM to all Sensors checks.

Second Hit: Sensors are disabled preventing the ship from making Sensors checks and on making attacks on targets beyond Adjacent range.

Third Hit: Sensors are destroyed.

Subsequent Hits: Count as Hull hits.

Bridge

The bridge is hit.

First Hit: The crew suffer a Crew Hit, rolling on the Normal Damage column.

Second Hit: The bridge is disabled. Until the bridge is repaired, the ship cannot take any Pilot or Sensor actions, it cannot jump, and any attacks suffer a –2 DM.

Third Hit: The bridge is destroyed.

Subsequent Hits: Count as Structure Hits.

Fuel

The fuel is hit.

First Hit: Causes a minor fuel leak of 1d6 tons per hour.

Second Hit: Destroys 1d6×10% of stored fuel.

Third Hit: Destroys fuel tank.

Subsequent Hits: Count as Structure Hits.

Hold

The crago hold is hit.

First Hit: Destroys 1d6×10% of stored cargo.

Second Hit: Destroys 1d6×10% of stored cargo.

Third Hit: Destroys cargo hold and everything in it.

Subsequent Hits: Count as Structure Hits.

Crew

Each hit on the crew indicates that radiation or flying debris has injured one or more crew. Roll 2d6 on the appropriate column on the Crew Damage table.

Crew Damage Table

Roll	Normal Damage	Radiation Damage
4 or less	Lucky escape – no damage	Lucky escape – no radiation
5–8	One random crew member suffers 2d6 damage	One random crew member suffers 2d6×10 rads
9–10	One random crew member suffers 4d6 damage	One random crew member suffers 4d6×10 rads
11	All crew suffer 2d6 damage	All crew suffer 2d6×10 rads
12	All crew suffer 4d6 damage	All crew suffer 4d6×10 rads

PSIONICS

PSIONIC STRENGTH

Psionics are powered by the Psionic Strength characteristic (abbreviation Psi). This characteristic cannot be rolled or bought during character creation without the Referee's permission. To determine a character's Psionic Strength, roll 2d6 and subtract the number of terms served by the character in any career (Psionic Strength diminishes over time unless actively used).

Using a psionic talent costs a number of Psionic Strength points, temporarily reducing the character's total. As the Characteristic DM for all Psionic skill checks is determined by the characters' current Psionic Strength total, it gets harder and harder to use powers as the character's strength declines.

Recovering Psionic Strength Points: Expended Psionic Strength points are recovered at the rate of one point per hour, beginning three hours after the character last used a psionic talent.

INSTITUTE TESTING

The first step is testing a character's Psionic Strength, which is determined as described above (2d6 – number of terms served). If the character still has any Psionic Strength remaining, he can be trained.

Training requires four months of work, and costs Cr. 100,000. As part of training, the character may attempt to learn any of the common psionic talents on the Psionic Training table by making a Psionic Strength check. He may attempt the talents in any order, but suffers a –1 DM per check attempted. If a character learns a talent, he gains that talent at level 0.

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

PSIONIC TALENTS

There are several psionic talents, each of which works like a skill for the powers in question. A character trained in the use of psionics may develop his talents over time

just as if they were normal skills. Unlike other skills, psionic talents cannot be used untrained. The most common talents are:

* Telepathy – reading minds and mental communication.
* 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.

Each talent grants access to all of its powers – a character with Telepathy 0 can use life detection, read surface thoughts or assault as the situation demands.

Using A Psionic Talent

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

Using a talent in combat is a significant action.

Many abilities are ranged. The Psionic Range table lists the number of points to project an ability out to a given range – these must be paid as well as any points to activate the ability. Each talent has a different set of costs, with the exception of Awareness – all Awareness abilities apply to the Psion only.

Telepathy

Telepathy is the talent of mind-to-mind contact. It is subtle by nature but can also 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 character to sense the presence of other minds, the number of minds present, the general type of minds (animal, human, and so on) 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 at detecting intelligent minds. Shielded minds are undetectable (whether the shield is natural or artificial in origin). If an individual whom the telepath knows is 'life detected' he or she will be recognised.

Telepathy, Psionic Strength, 10–60 seconds, Easy (+4).

Costs 1+Range.

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). Telempathy also allows the emotions and feelings of others to be read by a character. The Effect of the check determines the strength of the projected emotion.

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 people will simply ascribe it to the mercurial nature of human emotions. Shielded individuals are immune to telempathy as they are all other Telepathy powers.

Telepathy, Psionic Strength, 10–60 seconds, Routine (+2).

Costs 1+Range.

Read Surface Thoughts

The most widely 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.

Telepathy, Psionic Strength, 10–60 seconds, Average (+0).

Costs 2+Range.

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.

Telepathy, Psionic Strength, 10–60 seconds, Difficult (–2).

Costs 2+Range.

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 prober 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.

Telepathy, Psionic Strength, 1–6 minutes, Very Difficult (–4).

Costs 4+Range.

Assault

Violence may be dealt by a telepath. An unshielded mind, when assaulted telepathically, is rendered unconscious immediately and the character suffers 2d6 + Effect damage. Unlike normal damage, assault damage is applied to Psionic Strength (if the victim has it), then Intelligence, then Endurance. Psionic Strength and Endurance return as normal. Intelligence returns at the rate of one point per day.

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

Telepathy, Psionic Strength, 1–6 seconds, Formidable (–6).

Costs 8+Range.

Shield

All telepathically able characters learn how to create a mental shield which protects the mind against unwanted telepathic interference. Shield is automatically in force at all times and requires no Psionic Strength point expenditure to maintain. However, while a telepath has his shield up he cannot use any telepathic powers either. Shield can be lowered to allow telepathic contact or to use telepathic powers – this takes a mere thought (a free action in combat).

Clairvoyance

Clairvoyance is the general 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 individuals.

Sense

The basic ability to sense things at some point in the distance. A character 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 character 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.

Clairvoyance, Psionic Strength, 10–60 seconds, Routine (+2).

Costs 1+Range.

Tactical Awareness

With this ability, the character 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 how long the enhanced awareness lasts in rounds.

Clairvoyance, Psionic Strength, 1–6 seconds, Average (+0).

Costs 2+Range

Clairvoyance

This specific ability allows actual remote viewing of a situation at some displaced point. Rather than the 'snapshot' that sense gives, clairvoyance allows the psion to observe as if he was there in person. The clairvoyant character must state the range at which he is applying his talent. The Effect of the check determines the level of detail perceived and the duration in rounds the vision can be maintained for.

Clairvoyance, Psionic Strength, 10–60 seconds, Average (+0).

Costs 2+Range.

Clairaudience

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

Clairvoyance, Psionic Strength, 10–60 seconds, Average (+0).

Costs 2+Range.

Clairsentience

This power combines the effects of clairvoyance and clairaudience. The character is capable of both seeing and hearing a specific situation.

Clairvoyance, Psionic Strength, 10–60 seconds, Difficult (–2).

Costs 3+Range.

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 character to move objects at range. The Effect of the check determines the duration of the telekinesis in rounds. The number of points spent determines the Strength of the Telekinesis.

Telekinesis, Psionic Strength, 1–6 seconds, Average (+0).

Costs Strength+Range.

Flight

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

Telekinesis, Psionic Strength, 1–6 seconds, Average (+0).

Costs 5.

Telekinetic Punch

Telekinesis can be used as a direct attack, smashing the foe with a blast of telekinetic force. The damage inflicted is 2d6 + the Effect of the check.

Telekinesis, Psionic Strength, 1–6 seconds, Average (+0).

Costs 1+Range.

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. The range is always Personal.

Telekinesis, Psionic Strength, 10–60 seconds, Difficult (–2).

Costs 3.

Pyrokinesis

By exciting the substance of an object the character can raise its temperature, possibly even causing it to burst into flames. Roll 1d6 and add the Effect of the check.

Pyrokinesis

Effect	Target...
0–4	Becomes warmer, but is undamaged.
5–8	Is burned, suffering 1d6 damage.
9+	Suffers 2d6 damage and may burst into flame if flammable.

Telekinesis, Psionic Strength, 10–60 seconds, Difficult (–2).

Costs 3+Range.

Awareness

Awareness is the psionic talent which allows control of one's own body. Awareness powers never have a range – they are used only on yourself.

Suspended Animation

Personal body activity may be suspended for varying periods of time. A character 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 low passage berth without actually undergoing cold sleep and its dangers. Suspended animation may be stopped at any time previous to its duration expiring, provided external stimulus is given to awaken the sleeper (such as a friend or a mechanical alarm).

Awareness, Psionic Strength, 1–6 minutes, Average (+0).

Costs 3.

Enhanced Awareness

By focussing his mind, the character can improve his concentration and ability to perform complex tasks. While under the effects of enhanced awareness, the character may add his Psionic Strength DM (if positive) to any skill checks. Enhanced awareness lasts until the character fails a skill check or sleeps.

Awareness, Psionic Strength, 1–6 seconds, Average (+0).

Costs 1.

Psionically Enhanced Strength

Psionic Strength points may be converted to normal Strength points on a temporary basis. The character makes the commitment, reduces his Psionic Strength by a specific number of points, and increases his physical Strength characteristic by that number. In no case may the number of Strength points gained exceed the character's current level in Awareness, and Strength may not be increased beyond the character's racial maximum. Psionically enhanced strength reaches its new level immediately, remains at that peak for ten minutes, and then declines at the rate of 1 Strength point per minute until the normal Strength level is reached. This power works as normal on wounded characters but their Strength returns to the wounded level rather than the normal value. It cannot be used as a 'quick heal'.

Awareness, Psionic Strength, 1–6 seconds, Average (+0).

Costs boosted Strength.

Psionically Enhanced Endurance

Psionically enhanced endurance works in exactly the same way as psionically enhanced strength except the characteristic boosted is Endurance rather than Strength, including its lack of healing ability.

Awareness, Psionic Strength, 1–6 seconds, Average (+0).

Costs boosted Endurance.

Regeneration

Wounds and injuries may be healed rapidly. Strength, Dexterity and Endurance lost to injury, disease, poison or other trauma may be healed by the application of this ability, exchanging one Psionic Strength point to regenerate one characteristic point. Any amount of Psionic Strength may be expended with a single use of regeneration but it may not be used again until all expended Psionic Strength is recovered. Regeneration may also be applied to the growing of new limbs or organs to replace lost ones or to heal unrecovered old wounds suffered prior to psionic training. Regeneration may not be used to counteract aging. Awareness is not capable of affecting others and may not be used for healing or enhancing other characters.

Awareness, Psionic Strength, 10–60 seconds, Very Difficult (–4).

Costs amount healed.

Body Armour

By channelling psionic strength to his skeletal structure and boosting his healing rate, the character can enhance his ability to absorb damage. Body armour lasts for a number of rounds equal to the Effect of the check and provides an armour rating equal to the number of Psionic Strength points expended. This armour stacks with worn armour as normal.

Awareness, Psionic Strength, 1–6 seconds, Very Difficult (–4).

Costs 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 character's body and (for highly skilled teleporters) his or her clothing and weapons.

Unlike the other talents, Teleportation has only a single power: the ability to teleport yourself. Teleporting without any equipment or clothing uses the Teleportation talent with the Psionic Strength DM as a modifier. The act of teleporting takes 1–6 seconds (a significant action in combat) and costs nothing except what the psion spends on range.

Teleporting with up to 10 kg of equipment or clothing is Difficult (–2 DM) and costs 2 + range Psionic Strength points.

Teleporting with up to 500 kg of equipment is Very Difficult (–4 DM) and costs 4 + range Psionic Strength points.

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.

Preknowledge of Destination: A character must always have a mental image of his or her destination before teleporting. This mental image is acquired by personally visiting the location first (or 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. The key to remember is that someone has to actually view

the location – recorded images are not enough.

Energy and Momentum: Teleportation involves serious restrictions on movement in order to assure the conservation of energy and momentum.

On planetary surfaces, teleportation is restricted to jumps of Very Distant range or less. Jumps at Very Distant range involve disorientation for a period of 20 to 120 seconds (2d6×10) after arrival. 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 one of its poles would result in a total velocity difference between the character and his surroundings of over 3300 kph, which would lead to a messy death in short order.

Teleporting to or from vehicles travelling at high speed can also result in energy gains or losses. When teleporting into, onto or out of a fast-moving vehicle the psion takes damage as if the vehicle had rammed him at its current speed.

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 degrees Celsius; 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 meters, and multiple jumps should not involve a cumulative elevation change or more than 600 meters in one hour. These problems may be gotten around through the use of technological devices: energy compensators, heated suits, and other means. Characters may feel driven to invent such materials, commission their invention, or seek them out from those who already have them.

PSIONIC TECHNOLOGY

Psi-Drugs (TL 8+): These drugs restore Psionic Strength if taken when the character has already spent Psionic Strength points, or temporarily increase the character's Psionic Strength if taken when he is at full Psionic Strength.

A character who takes more than one dose of Standard or Double Psi-Drug, or a single dose of the Special drug must make an Endurance check, with a –1 DM per dose of psi-drug taken in the last week (not including the one just taken). If the check is failed the character falls ill with a serious fever, suffering 3d6 damage and permanently reducing his Psionic Strength by one.

Drug	TL	Psionic Strength Restored	Boosted	Cost (Cr.)
Standard	8	3	2	1,000
Double	9	6	4	4,000
Special	10	9	6	10,000

Inhibitor Drug (TL 9): Psionic inhibitors dampen the brain's ability to generate psychic effects. A character who takes (or, more often, is forcibly injected with) an inhibitor drug suffers a –4 DM to all Psionic Strength checks and cannot regain Psionic Strength points. Each hour the character may make an Endurance check to throw off the effects of the drug with a +1 DM for every previous check. Inhibitor drugs have no effect on non-psionic individuals. The drugs cost Cr. 500 per dose.

Psionic Shield (TL 12): Any armour incorporating a helmet or hood can be outfitted with a psionic shield, blocking Telepathy. Unlike the Telepathy power shield a technological shield is invulnerable to assault and blocks send thoughts. It cannot be lowered without removing the helmet or hood containing the shield. Cr. 40,000.

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

Teleportation Suit (TL 12): 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 Cr. 50,000 and allows a character 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.

Psionic Interface (TL 14): Any weapon or technological device can be outfitted with a psionic interface. A character using a device with a psionic interface can use his Psionic Strength DM instead of his Dexterity DM when using the weapon or device; a character without psionic ability cannot use the device. The character must either touch the device or use telekinesis to interact with it at range. Adding a psionic interface increases the cost of the device by 20%.

TRADE

FREIGHT

Freight shipments pay Cr. 1,000 per ton for shipping a ton for one parsec, +200 Cr. per additional parsec. Freight lots must be transported in their entirety, and come in three sizes:

- Major cargos are composed of 1d6×10 tons of freight.
- Minor cargos are composed of 1d6×5 tons of freight.
- Incidental cargos are composed of 1d6 tons of freight.

To determine the number of cargos available, add the destination planet's Population value to the modifiers from the Freight Traffic table, then consult the Freight Lots Available table.

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 1d6+4×10%.

Mail

Mail is a special form of freight, consisting of large data storage drums which contain a vast amount of information that must be transported from one world to another, but is 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 Mail DMs, then roll on the available mail table.

Mail Dice Modifiers
- Freight Traffic modifier of –10 or more: –2 DM
- Freight Traffic modifier of –9 to –5: –1 DM
- Freight Traffic modifier of –4 to +4: +0 DM
- Freight Traffic modifier of 5 to 9: +1 DM
- Freight Traffic modifier of 10+: +2 DM
- Characters' ship is armed: +2 DM
- + characters' highest Naval or Scout rank
- + characters' highest Social Standing DM
- World has a TL of 5 or less: –4

Roll 2d6. On a 12 or more, after modifiers, the characters can transport mail to the destination world. A mail container takes up five tons of space and the characters will be paid Cr. 25,000 for transporting the mail.

SPECULATIVE TRADE AND SMUGGLING

Finding a Supplier

Characters can search for multiple suppliers, but there is a –1 DM per previous attempt on a planet in a given month.

Finding a supplier: Broker, Education or Social Standing, 1–6 days, Average (+0).

Finding a black market supplier: (Illegal goods only) Streetwise, Education or Social Standing, 1–6 days, Average (+0).

Finding an online supplier: (Worlds with TL 8+ only) Computers, Education, 1–6 hours, Average (+0).

The size of the Starport provides a bonus to finding a supplier. Class A starports give a +6 DM, class B starports give a +4 DM and class C starports give a +2 DM.

Determine Goods Available

Goods are divided into two categories of goods – 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 is limited – the tons column determines how many tons of a given type of goods are available for purchase.

A given supplier has all Common Goods available, the Trade Goods that match the world's trade code, and 1d6 randomly determined goods. Roll d66 on the table to 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.

Determine Purchase Price

To determine the purchase price, roll 3d6 and apply the following modifiers:

Modified Price Table

Item	Cost (Cr.)	Purchase DM
Basic Electronics	25,000	+0
Basic Machine Parts	10,000	+0
Basic Manufactured Goods	20,000	+0
Basic Raw Materials	5,000	+0
Basic Vehicles	30,000	+0
Crystals and Gems	20,000	+1
Petrochemicals	10,000	+2
Pharmaceuticals	100,000	+0
Precious Metals	50,000	+1
Radioactives	1,000,000	+0
Spices	6,000	+2
Uncommon Raw Materials	20,000	+0

- + the character's Broker skill (or the local broker's skill).
- + the character's Intelligence or Social Standing DM, whichever is higher.
- + the largest Dice Modifier from the Purchase DM column.
- – the largest Dice Modifier from the Sale DM column.
- – any Dice Modifiers 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 ones 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, then he cannot deal with that supplier again for at least one week. After that week, he may reroll one of the dice thrown to determine the purchase price for those goods.

Selling Goods

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

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

If a character does not accept the price offered for his goods, he must find another buyer or wait a week, in which case he may reroll one of the dice thrown to determine the purchase price.

WORLD CREATION

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 on the subsector map, throwing one die and marking the hex with a circle if the result is a 4, 5, or 6. This indicates that a world 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 spiral arms of the galaxy. Apply a –2 DM for 'rift sectors', a –1 DM for sparse sectors and a +1 DM for densely populated sectors.

Starport Type: Many worlds have starports, their presence being essential to interstellar trade and commerce.

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

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. The presence of a gas giant allows starships equipped with fuel scoops 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 1–6 hours per 40 tons of fuel.

Gas giants are relatively common. For each system throw 10+ on 2d6 for at least one gas giant not to be present in the system.

Travel Zones: Most worlds are assumed to be civilized, 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.

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.

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.

Column 1	Column 2
Industrial or High Tech	Asteroid, Desert, Ice Capped, Non-Industrial
High Population or Rich	Agricultural, Garden, Water World

WORLD CREATION

The basic planetary characteristics are Size, Atmosphere, Hydrology, Population, Government, Law Level, Technology Level, Starport and Bases, and are generated using two-dice throws, with DMs applied based on other characteristics. These characteristics establish the basic identity of a world, and are referred to as the Universal World Profile (UWP). Additional information can be generated, and should be, to more fully describe a world.

Size

The Size characteristic for inhabitable worlds ranges from 0 to 10, and is determined by rolling 2d6–2.

Atmosphere Table

Digit	Atmosphere	Pressure	Survival Gear Required
0	None	0.00	Vacc Suit
1	Trace	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	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	Varies	Vacc Suit
12 (C)	Insidious	Varies	Vacc Suit
13 (D)	Dense, High	2.5+	
14 (E)	Thin, Low	0.5 or less	
15 (F)	Unusual	Varies	Varies

Size Table

Digit	World Size	Surface Gravity (gs)
0	800 km	Negligible
1	1,600 km	0.05
2	3,200 km	0.15
3	4,800 km	0.25
4	6,400 km	0.35
5	8,000 km	0.45
6	9,600 km	0.7
7	11,200 km	0.9
8	12,800 km	1.0
9	14,400 km	1.25
10 (A)	16,000 km	1.4

High and Low Gravity Worlds

Worlds where the gravity is 0.75 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). 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. Characters on low-gravity worlds suffer a –1 DM to all skill checks until they acclimatise, a process which takes 1d6 weeks. Characters with the Zero-G skill at level 0 or better acclimatise instantly.

High-gravity worlds have a gravity 1.25 times or more than of Earth. 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. Humans find high-gravity worlds unpleasant. Especially high-gravity worlds require the use of pressured or powered suits to support the human frame. Characters on high-gravity worlds suffer a –1 DM to all skill checks until they acclimatise, a process which takes 1d6 weeks.

ATMOSPHERE

A planet's Atmosphere is generated by rolling 2d6–7 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 character who breathes a tainted atmosphere without a filter will suffer 1d6 damage every few minutes (or hours, depending on the level of taint).

Exotic: An exotic atmosphere is unbreathable by humans, but is not otherwise hazardous. A character needs an air supply to breath in an exotic atmosphere.

Corrosive: Corrosive atmospheres are highly dangerous. A character who breathes in a corrosive atmosphere will suffer 1d6 damage each round.

Insidious: An insidious atmosphere is like a corrosive one, but it is so corrosive that it attacks equipment as well. The chief danger in an insidious atmosphere is that the toxic gases will destroy the seals and filters on the character's protective gear. An insidious atmosphere worms its way past protection after 2d6 hours on average, although vigilant maintenance or advanced protective gear can prolong survival times.

Dense, High (D): These worlds have thick N2/O2 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.

Thin, Low (E): The opposite of the Dense, High atmosphere, these massive worlds have thin N2/O2 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 (F): 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 that the local air pressure changes from dense to thin depending on the current wearther; and other planets with unusual and hazardous atmospheric conditions.

Hydrographics Table

Digit	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.

Hydrographics

Hydrographic percentage is obtained by rolling 2d6–7 and adding the planet's Size, modified by the planet's atmosphere or size as described below:

Size 0 or 1	Hydrographics 0
Atmosphere 0, 1, A, B or C	–4

If the planet's atmosphere is not D (or a kind of F that is thick enough to retain water) then also apply DMs for temperature:

Hot Temperature	–2
Roasting Temperature	–6

POPULATION

Population is generated by rolling 2d6–2 on the Population Table:

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 is determined by rolling 2d6–7 and adding the planet's Population.

Rivals, Factions, Connections and Colonies

Roll 1d3 to determine how many factions there are on the planet, with a DM of +1 if the government type is 0 or 7, and a DM of –1 if the government type is 10 or more. Determine what 'mini-government' each faction uses on the government table. In cases where the faction type is the same as the current government type, then it is a splinter faction within the ruling government. In cases where it is radically different, then the faction is a rebel group or movement.

Roll 2d6 to determine the strength of each faction:

Population Table

Digit	Population	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

Law Level Table - Illegal Possessions

Digit	Weapons	Drugs	Information
0	No restrictions.	No restrictions.	No restrictions.
1	Poison gas, explosives, undetectable weapons, WMD	Highly addictive and dangerous narcotics	Intellect programs
2	Portable energy weapons (except ship-mounted weapons)	Highly addictive narcotics	Agent programs
3	Heavy weapons	Combat drugs	Intrusion programs
4	Light assault weapons and submachine guns	Addictive narcotics	Security programs
5	Personal concealable weapons	Anagathics	Expert programs
6	All firearms except shotguns and stunners; carrying weapons discouraged	Fast and Slow drugs	Recent news from offworld.
7	Shotguns	All narcotics	Library programs, unfiltered data about other worlds. Free speech curtailed.
8	All bladed weapons, stunners	Medicinal drugs	Information technology, any non-critical data from offworld, personal media.
9+	Any weapons	All drugs	Any data from offworld. No free press.

Digit	Technology	Travellers	Psionics
0	No restrictions.	No restrictions.	No restrictions.
1	Dangerous technologies such as nanotechnology	Visitors must contact planetary authorities by radio, landing is permitted anywhere	Dangerous talents must be registered.
2	Alien technology	Visitors must report passenger manifest, landing is permitted anywhere	All psionic powers must be registered; use of dangerous powers forbidden.
3	TL 15 items	Landing only at starport or other authorised sites	Use of telepathy restricted to government-approved telepaths
4	TL 13 items	Landing only at starport	Use of teleportation and clairvoyance restricted
5	TL 11 items	Citizens must register offworld travel, visitors must register all business	Use of all psionic powers restricted to government psionicists
6	TL 9 items	Visits discouraged; excessive contact with citizens forbidden	Possession of psionic drugs banned
7	TL 7 items	Citizens may not leave planet; visitors may not leave starport	Use of psionics forbidden
8	TL 5 items	Landing permitted only to imperial agents	Psionic-related technology banned
9+	TL 3 items	No offworlders permitted	All psionics

Faction Strength Table

Roll	Relative Strength
1–3	*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 the government
12	*Overwhelming popular support* – more powerful than the government

LAW LEVEL

Law level is determined by rolling 2d6–7 and adding the Government characteristic.

The Law and Travellers

In each of the following situations, roll 2d6, add the listed modifiers, and if the total is lower than the planet's Law Level, the characters 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	Combat
Shots fired	–2	Combat
Breaking and entering	–2	Investigate
Firefight involving armoured characters and military weapons	–4	Combat
Murder and carnage	–4	Investigate

Check means that the characters' travel documents and identities are checked, either by a police officer or guard, or by electronically by querying the characters' comms. A successful Admin or Streetwise roll can allay suspicion but if this check is failed the planetary authorities move on to Investigation.

Investigate means that a detective or bureaucrat probes deeper into the characters' backgrounds. If the characters have a ship, it will be searched. They may be followed, or have their communications tapped. They may also be questioned closely.

Finally, Combat means that the police show up ready for a fight. Their response will generally be proportional to the threat posed by the player characters; if the characters 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 characters 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 TL (or even a few levels higher).

Characters arrested for a crime will face punishment, determined by rolling 2d6+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. Other crimes have a set 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 character 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 Roll	Sentence
0 or less	Dismissed or trivial punishment
1–2	Fine of 1d6×1,000 credits
3–4	Fine of 2d6×5,000 credits
5–6	Exile or a fine of 2d6×10,000 credits
7–8	Imprisonment for 1d6 months or exile or fine of 2d6×20,000 credits
9–10	Imprisonment for 1d6 years or exile
11–12	Imprisonment for 2d6 years or exile
13–14	Life imprisonment
15+	Death

A result of Exile means that the character must leave the planet immediately and never return. Fines for smuggling goods are per ton of goods seized – gun running can be an extremely risky proposition.

STARPORT

To determine the level of a starport on a planet, roll 2d6:

Starport Table

Roll	Starport Class
2 or less	X
3	E
4	E
5	D
6	D
7	C
8	C
9	B
10	B
11+	A

Starport Value	DM	Size Value	DM	Atmosphere Value	DM
0		0	+2	0	+1
1		1	+2	1	+1
2	´	2	+1	2	+1
3		3	+1	3	+1
4		4	+1	4	
5		5		5	
6		6		6	
7		7		7	
8		8		8	
9		9		9	
10 (A)	+6	10 (A)		10 (A)	+1
11 (B)	+4	11 (B)		11 (B)	+1
12 (C)	+2	12 (C)		12 (C)	+1
13 (D)		13 (D)		13 (D)	+1
14 (E)		14 (E)		14 (E)	+1
15 (F)		15 (F)		15 (F)	+1
X	–4	X		X	

Hydro Value	DM	Population Value	DM	Government Value	DM
0	+1	0		0	+1
1		1	+1	1	
2		2	+1	2	
3		3	+1	3	
4		4	+1	4	
5		5	+1	5	+1
6		6		6	
7		7		7	+2
8		8		8	
9	+1	9	+1	9	
10 (A)	+2	10 (A)	+2	10 (A)	
11 (B)		11 (B)	+3	11 (B)	
12 (C)		12 (C)	+4	12 (C)	
13 (D)		13 (D)		13 (D)	–2
14 (E)		14 (E)		14 (E)	–2
15 (F)		15 (F)		15 (F)	

TECHNOLOGY LEVEL

The Technology Level of the planet is determined by rolling 1d6 and adding DMs as follows:

Bases

Naval: A naval base is a supply depot, refuelling station, repair yard or fortress of the Navy. Naval vessels can obtain refined fuel and supplies here.

Scout: A scout base offers refined fuel and supplies to scout ships.

Research: A Research base is dedicated to a particular field of research.

Consulate: A consulate is an administration office for various departments such as commerce, justice and foreign affairs. Characters wishing to report significant crimes or obtain various permits will need to visit a consulate.

Pirate: The presence of a pirate base in a system in-dicates that a group of thieves is active in the area. Pirates are unlikely to be operating out of the starport itself (except on a Law Level 0 world), but no doubt have agents at the port on the look-out for likely prey.

Travel Codes

There are two travel codes – Amber and Red. An Amber world has been deemed dangerous, 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 world is too dangerous to allow visitors. Interdictions are enforced by the Navy.

A world with an Atmosphere of 10+, a government of 0, 7 or 10, or a Law Level of 0 or 9+ should be considered for Amber status. Red codes are given out at the discretion of the Referee.

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