

Book 3: Scout

Pushing Back the Frontier



Scouts

CREDITS

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In the same way that Mercenary and High Guard have examined the roles of the fighting and naval services respectively, Scouts takes a detailed look at the Scout service. In the pages of this book you will find rules for expanded Scout character generation, new career options, vastly enhanced Event and Mishap tables, additional, new, mustering benefits and a full overview of the work the Scout service undertakes.

Further chapters expand on the missions available to both Scouts and retired Scouts – a boon to referees who may need to quickly generate a scenario seed for rapid play. In addition, Scout Base Cygnus X-3, along with its eclectic crew, is detailed as a starting point for Scout-centric adventures to take place.

The Equipment and Ships chapter offers a plethora of new devices available to Scouts, and a selection of additional ships,

along with commentaries on their areas of use and advantages/ disadvantages.

The work of the Contact and Survey branches of the Scout service receives in-depth treatment in its own chapter. The extensive First Contact Protocol outlines how new civilisations should be approached and treated, whilst the Survey section details the essential stages of a survey mission, and offers an enhanced cartography system for detailing a stellar system

The book rounds out with a chapter for referees playing in the Third Imperium. The organisation of the IISS is detailed, with a particular focus on the work of the Imperial Grand Survey – those responsible for mapping and plotting the Imperium's expansion.





This chapter provides the rules for creating scout characters. It takes a special strength of will to undertake the hazardous exploration of the unknown, and whilst this is, to a large extent, the purpose of many *Traveller* games, characters may find themselves in this position by accident or coincidence; scouts, however, do this for a living. It is a vocation; a calling; a way of life. Scouts deliberately, and constantly, push themselves beyond the reaches of the known in order to satisfy the curiosity of society and their own, restless souls.

And it is risky work. A newly discovered system holds many dangers: asteroid and radiation belts; uncharted stellar anomalies; undiscovered, perhaps hostile, inhabitants – either aliens, native to the system and others, or isolated colonists, lost to the empire, that have little wish to be reconnected with the old regime. Scouts are the ones who get there first. Their initial observations and attitudes may make or break future relations. Scouts are pioneers, researchers, surveyors, ambassadors and diplomats, troubleshooters and peacemakers. In many ways, they are the essential *Travellers*.

Scouts may therefore arise naturally during the course of play, and the rules found in this book can be used to adjudicate the outcome of their activities, but equally there needs to be a way for scout characters to be developed as a career path before play begins. *Traveller* characters may have been scouts before moving onto a different walk of life, but the skills developed as part of their previous career have equipped them for the unknown. This chapter is therefore dedicated to creating the scout character – whether a character who later goes on to another career or who remains in pursuit of the wider excitement of the unknown.

Basic Scout Character Creation

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

Characteristics

The basic six characteristics of a scout character are the same as for any other character. Scouts tend to have higher than average Endurance characteristic owing to the rigours of long hours, often alone, in space flight or surveying hostile and potentially hostile environments. Scouts are tenacious and are physically and mentally prepared for both the isolation of space, including the boredom of long periods of travel, and the hazards of new environments. High Intelligence and Education characteristics are also beneficial for achieving promotion within the scout career – those with a curious, open mind can make those career-enhancing discoveries; and, understanding the nature of both space and stellar systems greatly assists the prospects of success.

Homeworld

Whilst scouts can ostensibly come from any Homeworld, those worlds that engender curiosity, resistance to hardships and a frontier spirit tend to produce those with the natural tenacity to excel as scouts. If your character comes from any of the below worlds, he gains a +1DM to enlistment in the Scout service:

Asteroid	Vacc	Low Pop
High Technology	Ice Capped	Gov Type o or 5
Industrial	Desert	

Infrastructure

Although they often operate alone or in small teams, scouts are backed by a solid infrastructure: a governing directorate that establishes scouting needs and missions; a communications wing that co-ordinates the often far-flung scout outposts; a technology wing that procures and assigns the essential equipment every scout needs; an operations wing that co-ordinates scouts and missions in a localised area (which may span several neighbouring systems, or be limited to just a single system); and an administrative bureaucracy that handles the necessary permissions and paperwork all scouts need to navigate at some point, especially if travelling through areas that have special interest to other parties (such as the military or scientific establishments engaged in specialist areas of study).

This infrastructure is common to all scout operations irrespective of the background used in your Traveller campaign. Any formal scouting service requires sanction, and this is what differentiates it from freebooters and chancers who prefer to operate beyond the rules and laws of civilised administrations. However, any scout service has to operate with a certain autonomy, and scout services tend to have more flexibility than other arms of the government, such as the army or navy, whilst still occupying the same importance of position. This does lead to certain complications though. The scout service is often viewed as a maverick branch, employing loners and rule-bucking renegades who can cause more harm than good in certain situations. Certainly the scout career tends to attract those with a taste for high adventure but prefer to disregard the kind of discipline essential to the military services. But, at the same time, the scout service fulfils an important need in that it takes the hard risks first – and so most other services grudgingly accept that scouts are allowed to bend, or sometimes ignore, certain rules, even if this is not a universally popular view.

The Scout Career Paths

The following career paths are designed for those with a career in the scout service. This is a dangerous career, especially when it comes to exploration and survey, and it requires a certain hardiness of mind, body and soul to cope with the rigours of the job.

There are five distinct scout career paths: Contact, Courier, Exploration, Special Operations and Survey. Each career branch has several specialist areas within its function that determine the skills derived in a particular term of service.

Contact

The Contact branch specialises in making contact with new races and civilisations, or re-establishing contact with old ones. It involves a variety of skills and techniques, including the general assessment of conditions, detailed study and survey of the subject, 'First Contact Protocols' where a new race is encountered, and first-line diplomatic/ ambassadorial functions before the diplomatic corps takes over. The Contact branch therefore requires people who have an eye for detail, the ability to accurately extrapolate factors such as technology level, military strength, propensity for hostility, political climate, specific biological considerations, and so forth. Contact scouts might spend years studying a system before any actual contact is made; and, if a new race or life-form is discovered, Contact frequently works with other agencies to ensure that the 'First Contact' is as successful as possible. Where it is necessary to re-establish contact with an isolated colony or civilisation, the branch studies the history of the subject extensively so it can be fully prepared for the likely reaction and reception to renewed communications.

Courier

Unfairly viewed as the 'messenger boys', the Courier branch is responsible for transporting messages across vast distances quickly, efficiently, safely and securely. In settings where faster-than-light communications are not possible, the Courier branch comes into its own, as it forms the vital link between the central hub of civilisations and far-flung systems, colonies and outposts. In settings where FTL communications are both possible and the norm, the Courier branch establishes relay points, provides encryption/decryption services, and takes responsibility for certain high priority communications that cannot be entrusted to another agency for specific reasons. The Courier branch also provides 'bodyguard' services for transporting dignitaries or VIPs, especially into newly discovered or established territories. Whatever the function, the Courier branch is anything but a glorified message service: it is frequently in charge of highly sensitive communications that require the full gamut of skills available in other branches, particularly Contact. Courier scouts are those who can prove their dependability, reliability and the ability to be both tactful and discreet.

Exploration

The Exploration branch is responsible for the high level exploration of new systems prior to a survey team being despatched for a more detailed survey of the area. Exploration deliberately heads into uncharted or barely charted regions of space, searching for a variety of things: stellar anomalies, habitable worlds, worlds and systems with particular characteristics, and so forth. Its remit is as broad as space itself, and Exploration crews often spend long periods amongst the stars, working on faint traces, hopeful glimmers and potential sites of interest as it does working with hard facts and evidence. Much of its work is involved with accurate charting and route definition: humdrum work that is, nevertheless, essential to many agencies. Where charting is concerned, the Exploration team must correctly note and quantify all factors that have a bearing: asteroid fields, dangerous anomalies – anything that might pose a hazard or risk to any space traffic that will make use of a route in the future.

Special Operations

Special Operations covers a wide range of activities, many of them highly secret or covert in nature. Special Operations might be required to undertake undercover work on behalf of an agency such as the army or navy, or supply advanced information relating to an enemy - existing or potential. Similarly, it might be required to make discreet contact with a new discovery, find out as much as possible, and then relay its findings in advance of a formal exploration, survey or contact team going in. The branch is also responsible for subtly manipulating civilisations according to a specific agenda. This might mean averting a war or starting one; imposing a new ruler or deposing the old. The agenda is dictated by a higher power, but Special Operations is chosen to conduct it because it has the skills and capabilities to effect transformation under the radar, and can be officially denied by a government or imperial power if needs require it. A scout service might even deny it has anything like a Special Operations branch, whilst, in reality, it readily engages in 'black' missions under the guise of its standard branches, but using specially trained and briefed operatives.

Survey

The Survey branch is responsible for the detailed assessment and survey of systems, stars and worlds once the high level assessment has been completed by the Exploration branch. Scout surveyors are specialists across a wide range of sciences and research techniques: these are professionals and experts in their field. Survey teams tend to incorporate a wide body of skills but may, just as equally, consist of a small group of specialists in a narrow range of disciplines, depending on the task in hand. Members of the Survey branch are used to spending long periods in situ: patience and diligence are watch words. Working with all the other Scout service branches, they compile detailed and accurate reports on their subject matter that form the core of the intelligence for a number of external agencies.

Additions to Mustering out

PROCEDURES

Scouts adds a new mustering out benefit specific to the Scout service: Secrets. Secrets are important and highly valuable information that the character has uncovered in the course of his work. When a secret is gained, the player must decide what to do with it: the choices are to gloss over it in official reports and have it when one begins play; clandestinely sell it without telling the Scouts, or reporting it fully to the service.

- If you choose to keep the secret, you retain it when your character begins play. It provides an adventure hook that should lead to fame, fortune and great risk.
- You may choose to officially conceal the information and sell it to interested parties gaining 1D6 x Cr10,000 when you choose, but if you do, you must make Int+Deception 9+ to prevent the Scout service from finding out. If you are discovered, you must forfeit 2 Benefit rolls and leave the service immediately.

• If you make the appropriate channels aware of the find, you gain an additional benefit roll and +1 to your next Advancement roll.

Secrets received during mustering out may be handled as above, with the exception that no bonuses to advancement are relevant. A character's retained secrets can never be greater than half his or her terms or rank (whichever is greater), minimum of one.

CHOOSING A SCOUT CAREER

For each term in the Scout service, choose a career branch and specialisation. Entry to that branch is determined by succeeding in the Qualification roll. Those characters who have spent time in other fields before joining the Scouts may find their previous experience fast tracking them into their chosen career path. If your character has served at least a term in the service listed in the Previous Service column, gain a +1DM to the Qualification roll for enlistment

Career Branch	Assignments	Qualification	Previous Service	Survival	Promotion
Contact		Int 7+			
	First Contact			End 6+	Edu 7+
	Diplomacy			Int 6+	Edu 7+
	Primary Liaison			Int 7+	Int 6+
Courier		End 5+	Navy		
	xBoat			End 6+	Edu 8+
	Cyphers			Edu 5+	Edu 9+
	Communications			Int 5+	Edu 9+
Exploration		End 7+			
	Pathfinder		Belter	End 7+	Edu 7+
	Analysis		Belter	Int 6+	Edu 8+
Special Ops		End 9+	Agent, Navy		
	Covert Surveillance			Int 6+	Edu 6+
	Espionage			End 7+	Int 8+
	Deep Cover			End 7+	Int 8+
Survey		End 6+	Scholar		
	World Analysis			End 6+	Edu 8+
	Stellar Analysis			End 6+	Edu 8+
	Cultural Analysis			End 7+	Edu 7+

CONTACT

As part of the Contact branch you serve in one of the elite teams responsible for establishing and maintaining contact with new races or establishing and maintaining contacting with remote, isolated, forgotten colonies or outposts.

Assignments: Choose one of the following:

- **First Contact**: You served as part of a team responsible for initiating first contact with either new alien races or rediscovered colonies and outposts. The role involved months of tentative observations and negotiations before contact was made, but when it was, you were knowledgeable and informed.
- **Diplomacy**: You operated as part of the diplomatic teams representing your home civilisation, preparing the way for the official diplomatic corps to become involved.
- **Primary Liaison**: Working with the diplomatic corps and the newly (re)discovered, you acted as the primary go-between as relations were established and made fruitful. Once relations were stable, you shifted into the background to form an essential advisory capacity.

Qualifications: Int 7+.

If you are aged 34 or more: -2 DM

Previous Service: -

Skills and Training

CAREER PROGRESS

	Survival	Advancement
First Contact	End 6+	Edu 7+
Diplomacy	Int 6+	Edu 7+
Primary Liaison	Int 7+	Int 6+

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	5,000	+ı Edu
2	10,000	+1 Social
3	15,000	Contact
4	20,000	Ally
5	30,000	Weapon
6	45,000	Secret
7	60,000	TAS

	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+ı Str	Pilot (spacecraft or small craft)	Medic
2	+1 Dex	Survival	Navigation
3	+ı End	Mechanic	Engineer
4	+ı Int	Science (any Life or Social)	Computer
5	+1 Edu	Comms	Space Science (any)
6	Jack of all Trades	Gun Combat (any)	Jack of All Trades
	Specialist: First Contact	Specialist: Diplomacy	Specialist: Primary Liaison

	Specialist: First Contact	Specialist: Diplomacy	Specialist: Primary Liaison
1	Investigate	Investigate	Language (Any)
2	Language (Any)	Diplomacy	Leadership
3	Leadership	Persuade	Diplomacy
4	Science (any Life or Social)	Science (any Life or Social)	Science (any Life or Social)
5	Recon	Admin	Admin
6	Persuade	Deception	Broker

RANKS AND SKILLS

Rank	Title	Skill or Benefit
1	Contact Officer	Persuasion 1
2	—	_
3	Contact Leader	Diplomacy 1
4	—	_
5	Contact Commander	Leadership 1
6	_	_



MISHAP

2d6	Mishap
2	Severely wounded. Roll twice on the Injury table and take the lower result.
3	An encounter with an alien race or re-contacted group leaves you psychologically scarred. Reduce either Int or Soc by 1
4	You inadvertently cause conflict between your home civilisation and the subject of your Contact mission. Gain a Rival and Diplomat 1
5	Your contact attempts result in a civil war on the planet and you take the blame. Gain an Enemy.
6	You contract a life-threatening, alien disease that almost kills you. Lose 2 End.
7	You become the carrier for a life-threatening disease and spend a year in quarantine. Forfeit one Skill this term and lose 1 Dex.
8	Intervening in a diplomatic incident you are blamed for the problems. Lose 1 Soc
9	The society you are studying proves to be more attractive than your own. Having to leave it causes a great emotional trauma. Lose 1 Int or 1 End.
10	A major disaster sweeps the world you are based on. Lose 1 Str, 1 Dex or 1 End. Roll on the Injury table.
11	Your diplomatic efforts result in the death of a colleague.
12	Injured. Roll on the Injury table.

Events

d66 Event

- 11 Disaster! Roll on the Mishap table, but remain in this career.
- 12 Make contact with a hitherto unknown alien race. Your Contact team is the first in this startling discovery. Roll 1D6 to determine the alien's reactions:
 - 1. Overtly Hostile. You are forced to retreat from their system. Gain Tactics on 8+.
 - 2. Hostile but wary. With intense negotiations, they may be peaceable. Roll Diplomacy 8+ to gain a +4 DM to next promotion.
 - 3. Neutral and wary. The aliens want little to do with you. Further diplomacy needed. Gain Diplomat on 8+.
 - 4. Neutral but welcoming. The aliens show reservations, but are not averse to contact. Gain Persuade on 8+.
 - 5. Friendly but wary. The aliens want time to get to know humanity. Gain a Contact in the form of a member of the race, or with a scout researcher.
 - 6. Friendly and welcoming. A great alliance can be forged between your peoples. Gain an Ally either in the form of a leader or diplomat of the race, or a senior scout researcher.
- 13 Discover an alien artefact drifting in space. Scans and research cannot determine its purpose, but, for reasons unknown, it activates as your ship moves in for a closer look. What is it? Roll 1D6:
 - 1. Warning beacon of some kind: the message says to beware this region of space.
 - 2. Weapon, which fires on your ship. Roll twice on the Injury table, taking the lowest result.
 - 3. Storage container containing detritus of some kind. Of curiosity value only.
 - 4. Storage container containing valuable alien artefacts and information. Gain a Secret or Investigate.
 - 5. Probe the aliens are now aware of your presence in this region of space. Roll on the Reactions table, above, to determine the way the aliens react to it.
 - 6. Strange science a singular piece of alien technology that is way beyond your own understanding (Tech Level 15+): a weapon, drive, or other startling discovery. Gain a Secret or a +2 DM to your next promotion roll
- 14 A routine mission to re-establish contact with a distant colony or outpost has unexpected consequences. Roll 1d6:
 - 1. The colonists have reverted to a state of savagery. Failures of equipment long ago mean they no longer remember their roots or links with a wider civilisation. You identify locations of this lost civilization: gain a secret, +1 to investigate or a social science
 - 2. The colonists are governed by a tyranny opposed to your society's ideals. Roll End 8+ to escape their attacks. If you fail, you are held prisoner for the rest of the term until diplomatic efforts get you released. Gain either an Ally, Streetwise or Deception from your years in prison.
 - 3. The colonists have been conquered by a neighbouring alien race. Roll 2d6. On 8+ the colonists are happy under the alien regime. Otherwise they suffer dreadfully and must be liberated. You may choose to become involved gaining + 1 to any weapons skill or Tactics, but take a -1 to next survival roll.
 - 4. The colonists have developed, or discovered, technology that would be invaluable to your society, but do not want to share it. Roll Diplomacy or Leadership 8+. If you succeed, you convince them of the benefits their discovery can bring. Gain a promotion.
 - 5. The colonists are dying from a crippling disease. Roll End 8+ to avoid contracting it. If you do contract it, either roll on the Injury table or take -1 End.
 - 6. The colonists have forgotten their roots, but their myths and stories tell of a saviour who will return from the stars to claim them. You are hailed as that messiah. Gain +1 Social, but also gain a Rival.
- 15 Your mission is long and fruitless in terms of contact with aliens or others. However, you fall in love with a member of your team. Gain 1 Ally, but also gain 1 Rival, as another member of your team has harboured unrequited desires for the person you have fallen in love with.
- 16 You come across a world that was inhabited by an unknown or barely known race, but is now completely dead. What destroyed this civilisation?
 - 1. Plague. Roll End 8+ to avoid contracting it. If you do contract it, either roll on the Injury table or take -1 End.
 - 2. War. The fallout (nuclear, chemical or biological) still prevails. Roll End 9+ to avoid its effects. If you fail, roll twice on the Injury table.
 - 3. Natural Disaster. Earthquakes or volcanic activity so powerful have rendered the world a wasteland. You encounter a few survivors who you return to civilisation. Gain either +1 Edu or +1 Social.
 - 4. Unknown. Only the remains of buildings are left. Gain a Life or Social Science as a result of your study.
 - 5. Meteor impact. The world is devastated and uninhabitable. Gain +1 to Space Science as a result of studying the meteor's effects on the planet.
 - 6. Sublimed. The race reached a pinnacle of mental capabilities and assumed a new, physically transcendent form. Clues are left showing how any race could achieve what they have achieved. Gain a Secret or a rank in any Science skill of your choice.
- 21 Diplomatic efforts during a contact mission creates tensions between the Contact branch and the official diplomatic corps. Gain a Rival. On a roll of Int 8+, you also uncover evidence of blackmail and corruption. Gain +1 to your next promotion, but also gain an Enemy.
- 22 You are asked to educate a newly discovered species of aliens. Gain Diplomat 1, Language 1 or a Contact amongst the species.
- 23 Your contact team looks up to you like a parent and/or mentor for years to come. Gain Instruction 1, Leadership 1 or Recruiting 1.

- A previous Contact team has failed to return. You are part of the investigating team to find them. Roll 1D6 for the outcome.
 - 1. After months and months of searching, there is no sign. You return empty-handed and demoralised.
 - 2. The crew's ship is found drifting in space. The crew is missing, and there is nothing aboard to suggest what happened to them: all vacc suits and emergency escape pods are in place. The last entry into the ship's log suggests nothing out of the ordinary.
 - 3. As above, but all the crew, bar one, are dead. The remaining crew member has been driven insane by something, and either killed the crew, or survived the massacre at the expense of his own sanity. He latches onto you for some reason, becoming either an Enemy or a Rival (roll randomly).
 - 4. The crew has been captured by pirates. A daring rescue attempt is launched. Roll End 8+. If you succeed, your team rescues the prisoners with no injuries. Gain +1 social and +1 to a benefit roll as you become a media darling for your part in the rescue. If you fail, roll on the Injury table, but gain a rank in either any weapon skill or Tactics. In either case you gain an Enemy.
 - 5. The contact team has found a new alien race or lost outpost and gone native. They refuse to return with you unless you make a roll of Int 10+, with DMs for Persuasion, Leadership or Diplomacy. If you succeed, gain +2 to your next promotion roll.
 - 6. The contact team has defected to an enemy, taking secrets with them. Gain one of the traitors as an Enemy.
- 25 Your team has been brought in to deal with an alien faction or threat. Gain Gun Combat (any) 1, Interrogation 1, Language 1, Navigation 1 or Streetwise 1.
- 26 Spend the entire term on an alien world. Gain Language 1 and Social Sciences (sophontology) 1
- 31-36 Roll on the Life Events table (page 34 of the main Traveller rules).
- 41 Diplomatic efforts you are involved in yield hugely beneficial results for your team and home society. You gain political recognition at home. Gain a Contact and an Ally.
- 42 You are the target of an assassination plot! Roll on the Injury table, but also gain Streetwise 1.
- 43 You are approached by a powerful patron who has a difficult request. Throw either Admin 8+ or Broker 8+. If you succeed, you gain +4 to your next Advancement roll. If you fail, word spreads of your ineptitude and you lose your Benefits roll for this term.
- 44 You are assigned the task of setting up a secret Contact base in a potentially hostile society. Throw either Stealth 8+ or Streetwise 8+. If you succeed, the base is established without a hitch and you gain +2 to either your next Advancement roll or your Muster roll for this term. If you fail the base is discovered and you are forced to leave the base hastily. You will be wanted as a spy by the society you were meant to infiltrate; gain an Enemy.
- 45 You form a romantic liaison with a Contact. The relationship breaks down and your ex-lover becomes a stalker. Gain an Enemy, and -1 to your next Advancement roll due to the lies he or she spreads about you.
- 46 Research you are conducting on an alien civilisation yields a startling discovery that must be kept absolutely secret. The media or other interested parties get wind of the discovery, compromising the mission. You may either accept the bribes offered to you to tell your side of the story, gaining a +2 DM to one financial Muster roll; or you can remain silent and keep a lid on the story, gaining instead either +2 to your next Advancement roll or a level of Streetwise.
- 51 You become involved in a personal research project that lends deep insight to a particular culture you are studying. Gain either +1 Edu or one level of any Life Science.
- 52 Interception of important communications brings you into possession of financially important information. Double the amount of your first financial mustering out benefit.
- 53 You discover a secret about a particular culture that is utterly repellent to you. You gain a deep distrust and dislike of this society, viewing all its members with abject suspicion and hatred. You may choose to gain a secret, but must lose an ally.
- 54 You are part of an experiment that is on the cutting-edge of cultural and contact study. Gain either +1 Edu or one level of either Comms or any Life or Social Science. Papers you contribute to scientific journals earn you +1 to your next Advancement roll.
- 55 Your assignment is headquartered in a huge commercial complex that leaves you with many places to spend your free time. Gain one of either Broker 1, Carouse 1, Gambler 1 or Streetwise 1.
- 56 A routine assignment becomes suddenly very dangerous. You suspect betrayal from someone within your own organisation but can never prove it. Gain an Enemy and Investigate 1 as you attempt to uncover the truth.
- 61 Through your efforts an important dignitary is saved a major social embarrassment. Gain him or her as a Contact.
- 62 You receive advanced training in one existing skill. Throw Edu 8+ to advance an existing skill by one level.
- 63 A vital piece of information falls into your hands concerning a scandal involving many high-ranking functionaries in the society you are studying. It is impossible to prevent the fall-out from the scandal, but the information you have nets you a substantial pay-out. Gain 2d6 x 1000 Credits as an immediate reward, but also gain an Enemy.
- 64 Survey of an alien world gains you either Animals 1, Survival 1, Recon 1 or any Life Science 1.
- 65 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 an a +2 DM on your next Advancement. If you fail, gain an enemy.
- 66 A commanding officer takes an interest in your career. Either gain a level of Comms or take a +4 DM to your next advancement roll as a result of his aid.

COURIER

You are part of a team handling important communications via both the xBoat (express boat) routes and the various encryption relays monitored and administered by the Scout service.

Assignments: Choose one of the following:

- **xBoat**: You serve aboard an xBoat fast vessels equipped with state of the art memory storage, encryption and signalling gear. The xBoats transport information between system-based distribution points, off-loading their messages, awaiting response, and then making the return leg.
- Ciphers: Based at a Scout way-station or major base, you are responsible for high-end encryption and decryption, cipher breaking and code manipulation. The assignment also includes the translation of new languages, using complex language translation software.
- Communications: Where a message absolutely has to be delivered personally, the Communications operatives handle it. Whether carrying physical documents, memory sticks, or complex data stored in cerebral implants (and retrievable only with unique, visual, audio and emotional keys), the Communications specialists can lead risky lives...

Qualifications: End 5+.

If you are aged 34 or more: –1 DM

Previous Service: Navy

SKILLS AND TRAINING

CAREER PROGRESS

	Survival	Advancement
xBoat	End 6+	Edu 8+
Ciphers	Edu 5+	Edu 8+
Communications	Int 5+	Edu 9+

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	10,000	+1 Dex
2	15,000	+1 End
3	20,000	Ally
4	25,000	Secret
5	30,000	Weapon and Armour
6	50,000	Scout ship
7	80,000	+1 Soc

	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+ı Int	Pilot (spacecraft)	Medic
2	+1 Edu	Comms	Astrogation
3	+1 Dex	Astrogation	Gunnery
4	Jack of All Trades	Sensors	Space Science (any)
5	+ı Str	Navigation	Science (Linguistics)
6	+ı End	Streetwise	Computer
	Specialist: xBoat	Specialist: Ciphers	Specialist: Communications
1	Pilot (spacecraft)	Computer	Gun Combat (any)
1 2	Pilot (spacecraft) Astrogation	Computer Comms	Gun Combat (any) Deception
1 2 3	· · · ·	•	
-	Astrogation	Comms	Deception
3	Astrogation Space Science (any)	Comms Science (Linguistics)	Deception Comms

RANKS AND SKILLS

Rank	Title	Skill or Benefit
1	Messenger Second Class	Comms 1
2	Messenger First Class	-
3	Team Leader	_
4	Communications Officer	Astrogation 1
5	Communications Leader	_
6	Communications Commander	Leadership 1



MISHAP	
2d6	Mishap
2	Severely wounded. Roll twice on the Injury table and take the lower result.
3	A technical error results in an important communication you were in charge of being wiped. Roll Comms 8+ to avoid dismissal from the career. If you succeed, lose 1 benefits roll when you muster out.
4	Mis-translation of a communique results in extreme embarrassment for a high-ranking official. Gain an Enemy.
5	Taking part in trials for a new, neural communications interface, you suffer a severe mental trauma. Roll End 8+ to avoid losing 1 Int. However, gain a +1 DM to gaining a psionic ability.
6	A vital message goes missing – either corrupted, hacked, or erased. You spend a great deal of time covering-up the mistakes (which are all your fault). Although there is no proof of your incompetence you are still forced to leave the service.
7	Budgetary constraints force the disbanding of your team. You are required to leave the service.
8	Your team is merged with another. You are given a choice: face a demotion of one rank or leave the service.
9	Allegations of corruption sweep your department. You lose your job and others, some of whom are friends, are also forced out of the service and they hold you responsible. Gain 1d2 Rivals.
10	A major disaster sweeps the world you are based on. Lose 1 Str, 1 Dex or 1 End. Roll on the Injury table.
11	You inadvertently cause a conflict between your society and a minor world or race. Gain a Rival and Diplomat 1
12	Injured. Roll on the Injury table

- **EVENTS** d66 Event Disaster! Roll on the Mishap table, but you are not ejected from this career. 11 You intercept a message or communique that has profound military or diplomatic repercussions for your society. You bring it to the 12 attention of your superiors with one of the following results: Some high-level conspiracy moves against you, believing you to have more knowledge than you do. Gain Investigate 1, but gain 1. an Enemy. A swift cover-up takes place that you know is illegal and immoral. People will die as a result. Trying to expose the situation 2. whilst you remain in this career is way too dangerous, but is something you know you should pursue. Gain Investigate 1. The revelations are proved to be fraudulent. You avoid being discredited but learn from the experience. Gain Deception 1. 3. Heads roll as a result of your revelations. Gain a + 1 DM to your next promotion roll, but also gain an Enemy. 4. Your swift action results in the saving of lives and reputations. Gain an Ally. 5. 6. Your swift and decisive action earns you the respect of your superiors. Gain an additional mustering out benefit when you leave the career. In the course of a message delivery mission your ship is attacked by pirates or enemies intent on destroying your cargo. Your efforts 13 in helping outrun or avoid the foe earns you a commendation and the admiration of the your colleagues. Gain a +2 DM to your next promotion roll and gain an Ally. Roll Int 9+. If successful an especially demanding mission or messaging project lends you valuable insight into your work. Roll 1D6 14 for the benefit realised: Edu +1 Science (any) 1 1. 4. **Computers 1** Admin 1 2. 5. Comms 1 6. Investigate 1 3. You uncover a bed of corruption within your branch network. Choose to join with them, expose them or turn a blind eye. 15 If you join with them, roll Deception 9+ to remain uncovered yourself. If you succeed, you gain Cr10,000 x1d6 in fraudulent money. If you fail, you are uncovered by your superiors and drummed out of the career without any mustering-out benefits. If you choose to expose the conspiracy, roll Int 8+ to avoid them finding out it was you. If you fail, you gain +1 to your next promotion roll, and Investigate 1, but also gain two Enemies. If you succeed you gain +1 to your next promotion roll, and Investigate 1. If you turn a blind eye, the scandal continues and compromises the security of the branch for all concerned: gain no benefits, but you must transfer to a separate branch of the Scout career next term. You find it hard to live with the guilt of remaining on the sidelines. While you serve in the Scouts, your promotion roll must be greater than current terms +3 to not leave the service. You are assigned as the chief point of liaison for an alien ambassador during an important summit where the Courier branch is 16 involved in acting as a neutral diplomatic chaperone for the alien delegation. Roll 1D6 for the outcome of your time in the alien's company: You fall out with the ambassador following a breach of etiquette. He becomes your Enemy and you gain a deep distrust of all 1. aliens of this species. 2. You get on well with the ambassador and are invited, as his or her guest, to spend time on the alien homeworld. This is an open invitation. Gain an Ally. You become physically and emotionally attracted to the alien ambassador; roll End 7+. If you succeed, you manage to keep your 3. desires a secret - a liaison of this kind would be deeply unprofessional and culturally unacceptable. If you fail. Your feelings become known and the ambassador reciprocates. Gain an Ally (who is now also your lover) but you must leave this career under a cloud of shame.
 - 4. You uncover a plot to discredit the ambassador. He or she is deeply impressed and reports this to your superiors. Gain an Ally and +1 to your next promotion roll.
 - 5. You learn much from your time with the alien. Gain either Language o in the alien's tongue, or a Life Science o in a relevant science pertaining to the alien.
 - 6. You foil and attempt on the ambassador's life. Gain an Ally, +2 to your next promotion and one additional Muster benefit when you leave this career.
 - 21 Although your work in the Courier branch is good, your superiors notice your talents are better suited to a different branch. Change branch next term to a different one; you do not need to make a Qualification roll.
 - A courier mission you are involved with goes wrong and you find yourself stranded deep in hostile territory. Roll End 8+, with a DM for Survival. If you succeed, you survive unscathed and are rescued. If you fail, roll on the Injury table, but gain Survival 1.
 - 23 You discover a way of processing information, or using a particular xBoat route, that is of huge benefit to the Courier branch. Gain either Comms 1, Astrogation 1, or Computer 1.

- 24 Your messaging and storage systems are hacked. Make Computer 9+ to discover the source of the cyber-piracy. If you succeed, you uncover a group of sophisticated cyber-criminals responsible for a spate of frauds and crimes. Gain Investigate 1 but also gain an Enemy. If you fail, it is impossible to track-down the cyber-pirates and their malware corrupts your systems. Gain a -1 DM to your next promotion.
- 25 A message you are charged with handling turns out to have profound implications for a family member or friend.
 - 1. The person you know is in grave danger
 - 2. The person you know is involved in dangerous criminal activity
 - 3. The person you know is a spy for an enemy
 - 4. The person you know has been connected with a scandal that will bring-down others
 - 5. The identity of the person you know is false; everything you know about them is a lie.
 - 6. Roll twice and combine the results (re-rolling if you roll 6 again).
 - Whatever the outcome, a friend or Ally becomes either a Rival or an Enemy. You also gain either Deception 1 or Investigate 1.
- 26 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 an a +2 DM on your next Advancement. If you fail, gain an enemy
- 31-36 Roll on the Life Events table (page 34 of the Traveller rules)
- A ship you are travelling on (xBoat or other Scout vessel) is ambushed by enemies. 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.
- 42 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 +2DM to your next Advancement roll. If you fail, roll on the Mishap table, but you are not ejected from this career.
- 43 Your scout ship is one of those 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.
- 44 You are assigned to a research team studying an alien language or cipher. Gain either Edu +1, Social Sciences (linguistics) 1, or Social Sciences (philosophy) 1
- 45 You are selected for Psionics training. If Psionics are not used in your Traveller campaign, re-roll on this table, ignoring the 45 result.
- 46 Your involvement in a difficult assignment results in an immediate promotion.
- 51 Your failure to produce accurate reports leads to a demotion.. If this would take you below the first rank then you must leave the Scout career at the end of this term. If you remain in the career, you gain Admin 1 as you are sent on a course to improve your report writing skills.
- 52 A package you are carrying turns out to be an ingeniously concealed explosive device. Roll Engineer (electronics) 9+ or Explosives 8+ to disarm it. If you succeed, gain a level in the skill you used. If you fail, the device explodes. Roll twice on the Injury table and take the lowest result.
- 53 You befriend a useful ally in the course of your work. Gain an Ally and gain either a level in Carouse or take a +4 DM to your next advancement roll as a result of his aid.
- 54 You stand out from the rank and file, and are groomed for advancement by a superior.
- Either gain Leadership, or take a +4DM to your next Advancement roll (in any Scout branch).
- 55 You are given extra training in combat. Choose one of the following skills Melee (blade), Zero-G, Medic or Gun Combat.
- 56 You come across a piece of alien technology that legally becomes your property. Either sell it for another benefit roll, or keep it (your Referee will determine what it is).
- 61 You rub shoulders with the nobility. Gain any one of Carouse 1, Diplomat 1, Steward 1 or Perform (dance) 1.
- 62 You are groomed for higher command by a senior officer. Either gain him as an Ally, or take a +4DM to your next Advancement roll (in any scout career).
- 63 You uncover a network of spies operating within the branch. If you choose to join them, you must make an Deception 8+ roll to prevent from being discovered. If this fails, you are caught and spend the next 8 years in prison, losing all career benefits. If you choose to turn the spies in, roll Leadership 8+ to foil their plot. If you fail, roll twice on the injury table taking the lower result and gain an Enemy. If you succeed you receive a commendation, a +2DM to your next Advancement roll and also gain an Enemy.
- 64 A civilian is killed during an assignment where you are forced to defend yourself. You are cleared of wrong-doing but the guilt is unbearable. You leave the service but gain a rank in Advocate. Roll Endurance 8+. If you fail you turn to either alcohol or drugs to alleviate the guilt, becoming dependent.
- 65 You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, but must leave the Scouts.
- 66 A commanding officer takes an interest in your career. Either gain a level of Comms or take a +4 DM to your next advancement roll as a result of his aid.

EXPLORATION

Your character is part of an explorations team, spending long periods in space, charting routes, surveying new worlds and systems, and going boldly where few people have ever gone before.

Assignments: Choose one of the following:

- Analysis: Analysis teams specialise in the deep analysis of systems, worlds and stellar anomalies. Science skills figure highly in their work.
- **Pathfinder**: Pathfinders specialised in planning, testing and verifying space lane routes. The role includes a certain amount of analysis but is focused more on Astrogation and Navigation.

Qualifications: End 6+.

Previous Service: Belters gain a +1 DM to the qualification roll owing to their familiarity with the rigours of exploration.

Note: All characters who opt for the Exploration branch are immediately trained in Vacc Suit o if they do not already have this skill.

Skills and Training

CAREER PROGRESS

	Survival	Advancement
Analysis	Int 6+	Edu 8+
Pathfinder	Edu 7+	Edu 7+

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	1,000	+1 Edu
2	5,000	Ally
3	10,000	Contact
4	15,000	Gun
5	20,000	Ship Share
6	35,000	Type S Scout
7	50,000	+ı Int

	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 End	Vacc Suit	Pilot (spacecraft)
2	+ı Int	Navigation	Pilot (small craft)
3	+1 Edu	Science (any space science)	Science (any space science)
4	Astrogation	Science (any life science)	Astrogation
5	Survival	Computer	Comms
6	Vacc Suit	Comms	Leadership
	Assignment: Analysis	Assignment: Pathfinder	
1	Assignment: Analysis Science (any space science)	Assignment: Pathfinder Astrogation	
1 2	• •	-	
1 2 3	Science (any space science)	Astrogation	
1 2 3 4	Science (any space science) Science (any life science)	Astrogation Comms	
1 2 3 4 5	Science (any space science) Science (any life science) Computer	Astrogation Comms Computer	

RANKS AND SKILLS

Rank	Title	Skill or Benefit
1	Exploration Operative	Sensors 1
2	—	_
3	Exploration Officer	Space Science (planetology) 1
4	Exploration Team Leader	_
5	—	_
6	Exploration Commander	Leadership 1



MISHAP

2d6 Mishap

- 2 Severely wounded. Roll twice on the Injury table and take the lower result.
- 3 An accident onboard ship results in massive decompression. Lose 1 End and 1 Int. You are mustered out of the service immediately. Roll Edu 8+; if you succeed, then the accident was not your fault and you leave on full mustering out benefits. If you fail, the accident is traced to your negligence and you lose half your accrued mustering out rolls.
- 4 An accident during an EVA results in you being marooned, alone, in space, floating away from your ship and comrades. The experience has a profound effect on you, leaving you psychologically damaged, developing all the hallmarks of agoraphobia
- 5 Your ship crosses through a radiation band where the ship's protection is insufficient to protect against the cosmic rays. Lose 1 Str and 1 End. You are also afflicted by recurring headaches, stomach aches and nausea for the remainder of your life.
- 6 Flare shielding fails whilst you are in the vicinity of a star. Roll End 8+, with a DM for Survival. If you succeed, you suffer temporary blindness. If you fail, the blindness is permanent. You are immediately mustered out of this career, This can be medically cured (see main rulebook for medical care rules).
- 7 On a routine mission in an asteroid belt you encounter a rock with an erratic trajectory. Make a Pilot roll to avoid collision. If successful there are no ill effects. If you fail, your ship is severely damaged forcing emergency repairs to be made. Roll Engineering 8+ to successfully repair the ship and limp home. If you fail this, the ship is stranded and you suffer the same effects as above.
- 8 You are accused of negligent flying, but the fault was with the starport traffic control. Roll Advocate 8+ to avoid losing all benefit rolls.
- 9 You are placed in the frozen watch, and something goes wrong with your capsule. One of your limbs atrophies. You are provided with a cybernetic replacement.
- 10 You are heavily irradiated in a reactor accident, suffering 1d6+2x100 rads. (See Radiation, page 141 of the main rulebook).
- 11 You volunteer for a medical trial involving a new drug or treatment. Gain an additional mustering out benefit, but the side-effects affect you physically: lose 1 from either Str, Dex, End or Int.
- 12 Injured. Roll on the Injury table

Events

d66 Event

- 11 Disaster! Roll on the Mishap table, but you are not ejected from this career.
- A love affair develops between you and one of your crew colleagues during the long missions out in the stars. This causes some resentment with another crew member. Gain an Ally (your lover) and a Rival. The rivalry becomes so intense that you are forced to end the liaison, either by you transferring to another branch or assignment, or your lover doing so. Decide which. If you remain, gain +1 Int from the experience, but your Rival becomes an Enemy.
- 13 Your team witnesses or encounters an extraordinary stellar anomaly. This is of major scientific interest and your name is attached to the discovery. Gain +1 Soc and +1 to a mustering out benefit roll.
- 14 An Astrogation error results in your ship mis-jumping and arriving in uncharted territory. Roll 1D6 for what you find:
 - 1. The remnants of an alien civilisation, long-dead. Gain Secret, or Sophontology and +1 Edu.
 - 2. A completely new, inhabitable, earth-type world Gain Secret or a +2 DM to your next promotion roll.
 - 3. An asteroid belt rich in exotic minerals and radioactives Gain Secret or one extra benefit roll.
 - 4. A new route that, somehow, reduces communication pathways by several weeks Gain Secret or a +1 DM to your next promotion roll.
 - 5. A stellar anomaly: as for entry 4 in this table Gain Secret or any Space Science
 - 6. Nothing. Unoccupied space. However your ship suffers a system failure and you are marooned here for weeks, depleting valuable rations and supplies. You are blamed for the failure: gain 1d2 Enemies.
- 15 Selected for specialised training. Gain one level of either Astrogation, Comms, Computer or any one Space Science.
- 16 The ship's pilot falls gravely ill and you are forced to take his position. Gain a level of Pilot (spacecraft). Also roll Medic 8+. If you succeed, the pilot survives and you gain +2 your next Advancement roll. If you fail he dies and, whilst it was not your fault, the family of the crew member blames you somehow. Gain an Enemy.
- The detailed study of an asteroid or planet uncovers substantial deposits of a rare and valuable mineral. You may choose to keep this information a secret, gaining 1D6 x Cr10,000 when you choose to sell the information to interested parties, but if you do, you must make Deception 8+ to prevent the Scout service from finding out. If you are discovered, you must forfeit 2 Benefit rolls and leave the service immediately. If you make the appropriate channels aware of the find, you gain an additional benefit roll and +1 to your next Advancement roll.
- 22 You gain valuable survey expertise. Gain one level in Sensors or Remote Operations.
- 23 You are given an especially difficult assignment. Roll Instruction, Medic or Admin 8+. If you succeed you are automatically promoted.
- 24 You may report a fellow crewman for dereliction of duty. If you do, roll 1d6. On a 1-2, you gain a rival. On a 3+, gain a +2 DM to your next promotion roll.
- A boring assignment leads to temptation.

If you develop a drinking problem or addiction, gain Streetwise and a reliance on a semi-legal drug or alcohol.

- 26 You find yourself taking command when a bridge hit incapacitates senior staff. Either gain Leadership, or take a +4DM to your next Advancement roll (in any Scout career).
- 31-36 Roll on the Life Events table (page 34 of the Traveller rules).
- Through diligent research a project you are working on makes a profound discovery, saving the service millions in costs. However your research is appropriated by a rival who has friends in high places. You gain +1 in an existing skill, but also gain a Rival.
- 42 A previously barren planet turns out to harbour micro-organic life after all. Gain one level in either Space Sciences (planetology) or Space Sciences (xenobiology). This remarkable find results in your gaining +4 to your next Advancement roll.
- 43 You become an indispensable part of the bridge staff. You are automatically promoted.

- 44 You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, but must leave the Scouts.
 - You are diverted from your current assignment to partake in the rescue mission of a stranded spacecraft. Roll 1D6.
 - 1. You are considered a hero and gain an automatic promotion for your efforts.
 - 2. Gain a Contact from one of the party you rescue.
 - 3. Gain an Ally from the of the party you rescue.
 - 4. Form a romantic attachment with one of those you rescue
 - 5. Sustain an injury: roll on the Injury table.

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- 6. Severely wounded. Roll twice on the Injury table and take the lower result.
- 46 You discover a new or innovative exploration or survey process that potentially saves the service millions of credits in costs. Gain either Edu +1, Astrogation +1, or Sensors +1. However the techniques you perfect are subsumed by the service and you receive no credit for your work. You become disillusioned: roll Int 8+. If you fail the roll, you immediately muster out. If you succeed, you gain a transfer to another branch
- 51 A chance sensor reading leads to the discovery of an entirely new system, which is named in your honour. Gain either an extra benefit roll from discovery bonuses, or gain a +1 Soc from the notoriety.
- 52 When you reach your destination, you find yourself caught up in a war. Your quick thinking gets you out of a tight spot. Gain +1 Social or a +1 DM to your next Benefits throw.
- 53 Administrative wrangling means you are transferred next term to another branch of the Scouts.
- 54 A joint mission with the Navy results in your being head-hunted. Muster out of the Scout service and automatically re-enlist in the Navy next term, as a commissioned officer at one-rank lower than your current position.
- 55 You are seconded as an adviser to a civilian research unit. Choose a branch of the Scholar career (page 30 of the Traveller rules) and roll 1D6 to gain a skill from the Specialist branch you choose to join. Next term, you return to this branch of the Scout service.
- 56 You serve under a captain who is overly strict. Make Pilot, Comms or Sensors 8+. If you succeed at all three, you may continue in this career. Otherwise, leave the career and gain the captain as a Rival.
- 61 Other flight deck crew members on your ship are using stimulant drugs to increase their endurance. If you do not do so, you fall behind and are replaced: you have a -2 to your next promotion roll. If you do so, you may continue on this career, but lose one benefit roll and have an addiction to stimulants.
- 62 Selected for advanced training. Gain a level in either Computer, Pilot, Remote Operations or Sensors.
- 63 You write a book on survey and exploration that becomes a set text at the Scout academy. Gain an extra benefit roll.
- 64 The character picks up a new contact. Roll 1d6: 1-3: Naval, 4-5: Civilian, 6: Superior officer or unusual.
- 65 Something odd has occurred. Roll 1d6:

1. One of your crewmates is a secret telepath, who offers to train you in psionics. You may test your Psionic Strength Potential and, if strong enough, take the Psionist career next term.

2. You are framed for a crime, and imprisoned for the remainder of this term. You are then ejected from the Scouts. Gain either an ally, +1 streetwise or +1 deception from your years in prison.

3. Your ship misjumps, and has to make a long voyage home. Gain one of Astrogation 1, Pilot (space craft) 1 or Mechanic 1.

4. You uncover evidence of a bureaucratic conspiracy within the service. Either join them, and gain a benefit roll on a 8+, or reveal their existence and gain 1d3 Enemies, and a +2 to next promotion roll.

5.You are captured and interrogated by agents of a foreign power. You manage to escape or be rescued (or did they let you go...?) Gain a secret, but due to suspicion, you have a -1 to all your subsequent promotion rolls.

6. Your ship encounters an anomaly, possibly connected to the Ancients. Gain a secret

66 You befriend a useful ally in the course of your work. Gain an Ally and gain either a level in Carouse or take a +4 DM to your next advancement roll as a result of his aid.

SPECIAL OPERATIONS

Special Operations is the elite branch of the Scout service, usually working in covert conditions and in association with services such as the Army and Navy. It can be highly dangerous work and requires special tenacity and discretion.

Assignments: Choose one of the following:

- **Covert Surveillance**: You secretly monitor the communications and movements of a particular target, feeding back information to other agencies or your superiors.
- **Espionage**: Given a diverse portfolio of missions, it is your job to spy and uncover secrets.
- **Deep Cover**: Working under a meticulously planned false identity you are both espionage and surveillance operative, but are required to spend a great deal of time gaining the absolute trust of those you spy upon, becoming life them and one of them.

Qualifications: End 9+.

If you are aged 28 or more: -2 DM

Previous Service: Agent, Navy

SKILLS AND TRAINING

CAREER PROGRESS

	Survival	Advancement
Covert Surveillance	Int 6+	Edu 6+
Espionage	End 7+	Int 8+
Deep Cover	End 7+	Int 8+

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	3,000	Gun Combat
2	5,000	Gun
3	10,000	+1 Dex
4	20,000	+1 Social
5	30,000	Secret
6	40,000	TAS or Type S Scout
7	50,000	Two Ship Shares

	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Dex	Athletics	Broker
2	+1 End	Deception	Comms
3	+ı Int	Gun Combat	Social Sciences (linguistics or philosophy)
4	+1 Soc	Investigate	Survival
5	Computers	Remote Ops	Stealth
6	Streetwise	Sensors	Tactics
	Specialist: Covert Surveillance	Specialist: Espionage	Specialist: Deep Cover
,	Comme	Comme	Comme

	Specialist: Covert Surveillance	Specialist: Espionage	Specialist: Deep Cover
1	Comms	Comms	Comms
2	Computer	Computer	Deception
3	Deception	Deception	Investigate
4	Language	Investigate	Persuasion
5	Recon	Persuasion	Stealth
6	Streetwise	Streetwise	Jack of All Trades

RANKS AND SKILLS

Rank	Title	Skill or Benefit
1	Special Operative	+1 Dex
2	Special Agent	_
3	Senior Agent	Investigate
4	Special Executive	Deception
5	Operations Leader	_
6	Operations Commander	_



MISHAP

2d6	Mishap
2	Severely wounded. Roll twice on the Injury table and take the lower result.
3	Your cover is blown and you are forced to evacuate your assignment. Roll End 8+. If you succeed you escape unharmed but are transferred to a separate Scout branch. If you fail, roll on the Injury table.
4	A criminal or other party under investigation offers you a deal. Accept it and you leave this career without further penalty (although you lose the Benefit roll as normal). Refuse and you must roll twice on the Injury table and take the lower result. Gain an Enemy and one level in any of the Service skills for this branch.
5	The job gets to you. The pressure of your work is such that you are forced to desert the service or face losing your sanity. Leave the career with no further Benefits, but gain Deception 1.
6	A contact is killed as a result of your ineptitude. Gain an Enemy in the shape of the contact's friends, family or colleague.
7	You learn things about your own service that are morally damaging. Roll Int 8+. If you succeed you must transfer from this branch and into another next term. If you fail you cannot live with the knowledge you've uncovered; leave the Scouts immediately and join the Drifter career next term.
8	An enemy from your past returns to haunt you and you find yourself in a vendetta against him or her that diverts your attention away from more pressing duties, causing your career to fail.
9	You are accused of malpractice or criminal behaviour. You may stay on in this career if you sacrifice all benefit rolls and reduce your Social Standing by two.
10	You are captured by those you spy on and interrogated. Roll End 9+ to avoid exposing your fellows. If you succeed, you spend 2d6 years in prison. If you fail, you expose your operation and endanger many lives. Spend 1D6 years in prison but gain 1d3 Enemies.
11	You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, but must leave the service.
12	Injured. Roll on the Injury table

EVENT			
d66	Event		
11	Disaster! Roll on the Mishap table, but you are not ejected from this career.		
12	A love affair develops between you and one of your contacts. Gain an Ally (your lover) and a Rival. The rivalry becomes so intense that you are forced to end the liaison, either by you transferring to another branch or assignment, or your lover doing so. Decide which. If you remain, gain +1 Int from the experience, but your Rival becomes an Enemy.		
13	As a result of your mission, gain one of the following skills: Athletics (any), Art (acting, instrument or writing), Carouse, Explosives, Language or Trade.		
14	A civilian is killed during an assignment where you are forced to defend yourself. You are cleared of wrong-doing but the guilt is unbearable. You gain +1 Advocate. Roll Endurance 8+. If you fail you turn to either alcohol or drugs to alleviate the guilt, becoming dependent.		
15	Selected for specialised training. Gain one level of either Deception, Comms, Computer or Stealth.		
16	You do things that you are not proud of, and will never speak of. Either gain Stealth, or take a +4DM to your next Advancement roll (in any Scout career).		
21	The only solution to a particular situation you have been monitoring or have uncovered is the assassination of one of your contacts. You may either attempt this yourself or call-in specialists that the Scout Spec Ops commanders will find for you. If you attempt the assassination yourself, roll Stealth 8+. If you succeed, the assassination is a success and you gain a rank in Stealth, but you must leave your mission and transfer to another branch of the Scouts next term. If you fail, roll Stealth or Deception 8+ to avoid being captured. If captured, you spend in the rest of the term in prison, being freed as part of a prisoner exchange but you are forced to leave the service. Gain +1 streetwise and +1 deception during your time in prison. On an 8+ gain an Ally AND an Enemy.		
22	You gain valuable espionage expertise. Gain one level in Investigate or Stealth .		
23	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 any one skill. If you fail, roll on the Mishap table, but you are not ejected from the career.		
24	To gain valuable information or intelligence, you are forced to blackmail a contact. Gain an Enemy, but also gain +1 to your next Advancement roll.		
25	You are given a difficult assignment. Roll Deception, Comms or Stealth 8+. If you succeed you are automatically promoted.		
26	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 +2DM to your next Advancement roll. If you fail, gain a secret, and roll on the Mishap table, but you are not ejected from this career.		
31-36	Roll on the Life Events table (page 34 of the Traveller rules).		
41	You are offered the opportunity to smuggle illegal items onto a planet. If you accept, roll Deception or Persuade 8+ to gain Streetwise and an extra benefit roll. If you fail, you lose a benefit roll and have a -1 to your next promotion roll. If you refuse, you gain an Enemy in the criminal sphere.		
42	You go undercover to investigate an enemy. Roll Deception 8+. If you succeed, roll immediately on the Rogue or Citizen events table and make one roll on a Specialist skill table for that career. If you fail, roll immediately on the Rogue or Citizen mishap table.		
43	Through investigation you find that an Enemy is really on your side: either gain an Ally, or convert one Enemy into an Ally.		
11	You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, and are		

44 You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, and are transferred to either the Agents, Army or Navy.

- 45 You become deeply involved in politics on your world of residence, becoming a player in the political intrigues of government. Increase Advocate, Admin, Diplomacy or Persuade, but also gain a Rival.
- 46 Through your efforts, a dictator or tyrant is brought down in a spectacular coup. Gain an Enemy, but also gain an automatic promotion and +2 to your Benefits roll for this term.
- 51 You are assigned to work on a secret project for a patron or organisation. Medic 1, Any Science 1, Engineering 1, Computers 1 or Investigate 1.
- 52 You may uncover a fellow operative's corruption or treachery. Roll 1d6. On a 1-2, you gain a rival. On a 3+, gain a +2 DM to your next promotion roll.
- 53 Administrative wrangling means you are transferred next term to another branch of the Scouts.
- 54 A joint mission with the Navy results in your being head-hunted. Muster out of the Scout service and automatically re-enlist in the Navy next term, as a commissioned officer at one-rank lower than your current position.
- 55 You are seconded as an adviser to a civilian research unit. Choose a branch of the Agent career (page 10 of the Traveller rules) and roll 1D6 to gain a skill from the Specialist branch you choose to join. Next term, you return to this branch of the Scout service.
- 56 A political conspiracy attempts to recruit you. If you refuse, gain the conspiracy as an Enemy. If you accept, roll Deception 8+ or Persuade 8+. If you fail, roll on the Mishap table as the conspiracy collapses. If you succeed, Increase one of Deception, Persuade, Tactics or Carouse.
- 61 You manipulate and charm your way through high society. Increase one of Carouse, Diplomat, Persuade or Steward, as well as a Rival and an Ally.
- 62 You make an alliance with a powerful and charismatic noble, who becomes an Ally. Either Increase Leadership, or take a +4DM to your next Advancement roll thanks to his aid.
- 63 You are forced to change both your appearance and your identity. You may choose how your facial appearance changes, but you must leave the Scouts and assume a new career; roll 1D6:
 - 1. Citizen
 - 2. Drifter
 - 3. Entertainer
 - 4. Merchant
 - 5. Nobility
 - 6. Rogue
 - Gain 1 extra benefit roll.
- 64 You pick up a new contact. Roll 1d6: 1-3: Agent, 4-5: Civilian, 6: Superior officer or unusual.
- 65 Something odd has occurred. Roll 1d6:
 - 1. You are tested for Psionics training. You may test your Psionic Strength Potential and, if strong enough, take the Psionist career next term.
 - 2. You are framed for a crime, and imprisoned for the remainder of this term. You are then ejected from the Scouts.
 - 3. Your friends or family are captured and held to ransom. Either save them, and leave the service immediately, or continue in your career and live with the guilt. Either way, gain 1d3 Enemies..
 - 4. You uncover evidence of a conspiracy within the service. Either join them, or reveal their existence and gain 1d3 Enemies.
 - 5. You are captured and interrogated by agents of a foreign power. You manage to escape or be rescued (or did they let you go...?).
 - 6. Your ship encounters an anomaly, possibly connected to the Ancients

66 You discover a world, item or information of worth to the Imperium. You are automatically promoted or gain a secret.

SURVEY

Once the Exploration branch has completed its high level analysis, the Survey branch moves in to conduct the detailed and extensive field study. Survey operatives are trained scientists used to spending years concentrating on one particular subject.

Assignments: Choose one of the following:

- World Analysis: You spend your time either planetside or on an orbital platform/space station, monitoring what is happening on the planet itself.
- Stellar Analysis: You undertake detailed analysis of an • entire solar system or sub-sector, correlating the results and extrapolating the findings. Your work is essential to any other agencies that need to work or pass through the region you are assigned to study.
- Cultural Analysis: You study the heart and soul of new cultures in great depth, often preceding contact teams and always following them. Your work is primarily scientific, and eschews politics and trade, often spending long periods of time on the ground, perhaps living among your subjects.

Any Space Science

Qualifications: End 6+.

Previous Service: Scholar

SKILLS AND TRAINING

CAREER PROGRESS

	Survival	Advancement
World Analysis	End 6+	Edu 8+
Stellar Analysis	End 6+	Edu 8+
Cultural Analysis	End 7+	Edu 8+

MUSTERING-OUT BENEFITS

Roll	Cash	Other Benefits
1	8,000	+1 Soc
2	16,000	+1 Edu
3	24,000	Scientific Equipment
4	32,000	Research Equipment
5	40,000	Secret
6	48,000	Type S Scout
7	56,000	TAS

linguistics

	Personal Development	Service Skills	Advanced Education (Minimum Edu 8)
1	+1 Dex	Vacc Suit	Astrogation
2	+1 End	Pilot	Any Physical Science
3	Vacc Suit	Navigation	Any Life Science
4	Survival	Comms	Any Social Science
5	Zero G	Sensors	Any Space Science
6	Any one Science	Computer	Jack of All Trades
	Specialist: World Analysis	Specialist: Stellar Analysis	Specialist: Cultural Analysis
1	Comms	Comms	Diplomat
2	Sensors	Sensors	Recon
3	Any Physical Science	Astrogation	Investigate
4	Any Life Science	Any Physical Science	Any Social Science
5	Survival	Any Space Science	Survival

RANKS AND SKILLS

6

Rank	Title	Skill or Benefit
1	Research Assistant	_
2	Researcher	Computers
3	_	_
4	Research Leader	Admin
5	_	_
6	Research Fellow	Leadership

Any Space Science



MISHAP

2d6 Mishap

- 2 Severely injured. Roll twice on the Injury table and take the lower result.
- 3 Exposed to hazardous atmospheric conditions. Roll Vacc Suit 8+; if you fail, roll twice on the Injury table and take the lower result. If you succeed, increase Vacc Suit by I level.
- 4 Exposed to exceedingly heavy gravity when ship gravitics fail. Roll End 8+. If you fail, reduce Str and Dex by 1d2 points each.
- 5 Incompetence regarding safety procedures results in the death or serious injury of several crew members. Roll Advocate 8+. If successful, you are found not guilty but the mistrust caused by the trial forces you out of the service. If you fail, you are found guilty of gross negligence and drummed out of the service immediately and without Benefits.
- 6 An accident onboard ship results in massive decompression. Lose 1 End and 1 Int. You are mustered out of the service immediately. Roll Edu 8+; if you succeed, then the accident was not your fault and you leave on full mustering out benefits. If you fail, the accident is traced to your negligence and you lose half your accrued mustering out rolls.
- 7 An accident during an EVA results in you being marooned, alone, in space, floating away from your ship and comrades. The experience has a profound effect on you, leaving you psychologically damaged. Lose 1 Int, and 1 level of Vacc Suit, plus develop all the hallmarks of agoraphobia
- 8 Your ship crosses through a radiation band where the ship protection is insufficient to protect against the cosmic rays. Lose 1 Str and 1 End. You are also afflicted by recurring headaches, stomach aches and nausea for the remainder of your life.
- 9 You contract a life-threatening, alien disease that almost kills you. Lose 2 End.
- 10 You become the carrier for a life-threatening disease and spend a year in quarantine. Forfeit one Skill this term and lose 1 Dex.
- 11 An accident during a routine operation results in one of the following roll 1D6
 - 1. Blinded: reduce Dex by half
 - 2. Deafened: reduce Dex by 2
 - 3. Lose an arm: reduce Str and Dex by half
 - 4. Lose a leg: reduce Str and Dex by half
 - 5. Severely burned: reduce End by half
 - 6. Severely disfigured: reduce Soc by half.

Regardless of the injury, you are retired from the service and allowed all accrued Benefits rolls. If you lost a limb or sight, you are fitted with cybernetic replacements if available and in lieu of a Benefit roll.

12 Injured. Roll on the Injury table.

Events

- d66 Event
- 11 Disaster! Roll on the Mishap table.
- 12 A love affair develops between you and one of your contacts. Gain an Ally (your lover) and a Rival. The rivalry becomes so intense that you are forced to end the liaison, either by you transferring to another branch or assignment, or your lover doing so. Decide which. If you remain, gain +1 Int from the experience, but your Rival becomes an Enemy.
- 13 As a result of your mission, gain one of the following skills: Computers, Life Science (any), Physical Science (any), Space Science (any)
- 14 Your survey work uncovers astonishing evidence that influences a topic of hot scientific debate. Receive +4 to your next Advancement roll.
- 15 Selected for specialised training. Gain one level of either, Comms, Computer or Pilot (spacecraft or small craft)
- 16 You do things that you are not proud of, and will never speak of. Either gain Stealth, or take a +4DM to your next Advancement roll (in any Scout career).
- The world or system you are studying begins to have a profound psychological effect on you and your team that cannot be explained by conventional science. You experience shared hallucinations, strange dreams, and disturbing perceptions of time and space. Gain 1d3 Allies. These psychological effects remain with you for the rest of your days. With the GMs approval you may roll 8+ to test your Psionic Strength Potential and, if strong enough, enter the Psionicist career as a wild talent.
- 22 You are engaged on a long term project on a single world or system. The project occupies two full terms automatically and at the end you are forced to retire from the Scouts. Roll on the skills tables as per normal, and this table once, for additional events during the project. You gain two additional Benefits rolls when retiring.
- 23 Strange energy signals from the object of your study reveal the existence of hitherto unknown sub-atomic particles. Your name is attached to the discovery and you are feted by your peers. Gain an Ally, a Contact and a Rival. Also gain either one level of either a Physical or Space Science, or a +2 DM to your Benefits roll for this term of service.
- 24 Realising that your presence in the area of study is having profound environmental effects, you recommend that the mission be cut short. Roll Int 9+ to convince your superiors of the urgency. If you succeed, gain +2 to the Benefit roll for this term. If you fail, the project leaves you with guilty feelings. Gain a Rival.
- 25 You spend a great deal of time on the fringes of known space. Roll Survival or Pilot 8+. If you succeed, gain a Contact in an alien race and any one skill. If you fail, roll on the Mishap table, but you are not forced to leave the service.
- 26 The remains of an ancient civilisation, predating anything previously encountered, is unearthed as part of a survey mission. Part of the find is extraordinary technology (minimum TL16) that has profound implications in one of the following areas (1D6):
 - 1. Space travel
 - 2. Weaponry
 - 3. Food production
 - 4. Atmospheric control
 - 5. Terraforming
 - 6. Psionics

The find has to be reported and agents from an outside authority commandeer the project. You and your team are sworn to secrecy and transferred to other duties. Towards the end of your term, someone working for the agency who confiscated the technology contacts you and reveals a secret about the experiments that have been undertaken with it (the Referee will decide what this secret is). If you can find the right outlet, the information you have will be worth millions of Credits. However, others know that you know and will attempt to silence you. Gain 1d3 Enemies and a -1 DM to all Survival throws.

- 31-36 Roll on the Life Events table (page 34 of the Traveller rules).
- 41 You write a book on survey and exploration that becomes a set text at the Scout academy. Gain an extra benefit roll.

- 42 An unexplainable stellar force or planetary effect changes your physiology. Roll End 8+. If successful it is a positive effect; if a failure, then a negative effect. Either increase or decrease one of your characteristics by 1d2 points, rolled randomly:
 - 1. Str
 - 2. Dex
 - 3. End
 - 4. Int
 - 5. Str and End
 - 6. Dex and Int
- 43 You become an indispensable part of the Survey staff. You are automatically promoted.
- 44 You are involved in a secret black project that must be buried. You are given an extra benefit roll as compensation, and are transferred to your choice of either the Agent, Army or Navy.
- Through diligent research a project you are working on makes a profound discovery that will save the service millions in costs. However your research is appropriated by a rival who has friends in high places. You gain +1 in an existing skill, but also gain a Rival.
- A previously barren planet turns out to harbour micro-organic life after all. Gain one level in either Space Sciences (planetology) or Space Sciences (xenobiology). This also proves to be a remarkable find that results in your gaining +4 to your next Advancement roll or a secret.
- 51 You are assigned to work on a secret project for a patron or organisation. Gain either of Medic 1, Any Science 1, Engineering 1, Computers 1 or Investigate 1.
- 52 You develop a deep friendship with co-researchers. Gain 1 Ally and 1 Contact.
- 53 Administrative wrangling means you are transferred next term to another branch of the Scouts.
- 54 A joint mission with the Navy results in your being head-hunted. Muster out of the Scout service and automatically re-enlist in the Navy next term, as a commissioned officer at one-rank lower than your current position.
- 55 You are seconded as a special adviser to a civilian research unit. Choose a branch of the Agent career (page 10 of the Traveller rules) and roll 1D6 to gain a skill from the Specialist branch you choose to join. Next term, you return to this branch of the Scout service.
- 56 A particular discovery or research outcome becomes the subject of a bitter dispute between you and a colleague. Gain a Rival.
- 61 You are invited to join an elite scientific fellowship: gain 1d3 Contacts, and increase Soc by 1. However you also gain 1d3 rivals who are jealous at the invitation.
- 62 Research you have published is discredited. Roll Edu 9+ to assure critics of your credentials otherwise gain 1d3 Rivals.
- 63 The outpost where you are stationed is attacked! Roll on the Injury table, but also gain one level of either: Blade Combat (any), Gun Combat (any), Tactics or Survival.
- 64 The character picks up a new contact. Roll 1d6: 1-3: Civilian, 4-5: Scholar, 6: Superior officer or unusual.
- 65 Something odd has occurred. Roll 1d6:
 - 1. You are tested for Psionics training. You may test your Psionic Strength Potential and, if strong enough, take the Psionist career next term.
 - 2. You are framed for a crime, and imprisoned for the remainder of this term. You are then ejected from the Scouts. Gain either an Ally, Streetwise or Deception from your years in prison.
 - 3. Your friends or family are captured and held to ransom. Either save them, and leave the service immediately, or continue in your career and live with the guilt. Either way, gain 1d3 Enemies.
 - 4. You uncover evidence of an administrative conspiracy within the service. Either join them, and gain an additional benefit roll on a 8+, or reveal their existence and gain 1d3 Enemies, and a +2 DM to your next promotion roll.
 - 5. You are captured and interrogated by agents of a foreign power. You manage to escape or be rescued (or did they let you go...?) Gain a secret, but due to suspicion, you have a -1 to all your subsequent promotion rolls.
 - 6. Your ship encounters an anomaly, possibly connected to the Ancients. Gain a secret.
- 66 You discover a world, item or information of worth to the Imperium. You are automatically promoted, or gain a Secret.

AFTER RETIREMENT

Every Scout, when he joins the service, understands that he may be undertaking a lifetime commitment. The Scout service has such a broad remit, requiring such a broad range of skills, abilities and life experiences, that retired Scouts are often summoned back to the service on short notice, either for one-off missions, short-term contracts, or even long-term endeavours.

For Traveller characters this is an ideal way to introduce a new adventure or scenario: the Scout service acts as the patron, and any ex-Scout is liable, at any time, to be summoned back for 'one last job', or to assist in a special exercise that requires his particular skills and experience. If the ex-Scout has colleagues that also have particular skills (such as his adventuring buddies, for instance), then on a roll of Int 9+ (with DMs for Broker and/or Persuasion) then he can make a successful case for his team being brought into the task as well.

If the Scout service summons a character back, refusal is difficult. The enlistment contract carries financial penalties for refusing a summons which can be legally enforced. The base fine is Cr20,000, but may be more depending on just how much the service wants the character to come back. If the fine is not paid, then the minimum prison sentence is 2 years.

However, coming out of retirement to serve the Scouts again can pay very well. The minimum payment for a job is Cr24,000, and this is standard for any task that lasts between a few days and 6 months. The pay scale is below:

Term of Employment	Salary
< 6 months	Cr24,000
6 – 12 months	Cr36,000
12 – 24 months	Cr54,000
24 – 48 months	Cr81,000
48 – 60 months	Cr122,000
60 months +	Cr183,000

The salary is paid monthly into a dedicated Scout banking account; so, for example, a character employed on a 60 month contract would be paid Cr2,033 per month until the end of his 5 year contract term.

Characters who are summoned back to the service for 12 months or greater are entitled to roll once on the Other Benefits column of the Mustering Out table appropriate to the branch that they are working for. Depending on how well they have acquitted themselves during their period of re-employment, they may gain a DM of +1 or +2 to the roll.

Scout Character Creation

EXAMPLE

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

MAHRAN SCHAEFFER

Born in the asteroid belt of his home system, Mahran dreams of exploring space beyond the confines of his habitat. The tales of the grizzled spacers and belters who frequent his father's bar fill him with a wander-lust only the Scout service can fulfil. At the age of 16 Mahran takes himself to the Scout base located at the far end of the asteroid and signs-up for the Scout service. The dour-looking administrative officer who guides him through the application process points out the commitment he is making ('You know the Scouts means *for life*, son? I hope so.').



Mahran Schaffer at 16

Str 8 (+0), Dex 4 (-1), End 6 (+0), Int 7 (+0), Edu 10 (+1), Soc 8 (+0) Asteroid, High Population, High Technology: Zero G o, Computers o, Streetwise o.

Enlistment and First Term

Coming from an asteroid, and a high-tech one at that, Mahran gains a +2 to his enlistment. He attempts to qualify for the Courier branch (End 5+). His enlistment roll (9) gains +2, so he breezes through the qualification procedure and, for his first assignment chooses xBoat, joining a messenger crew that is already based at his asteroid habitat.

As this is Mahran's first career, he gains the following Basic Training skills at level 0:

Pilot (spacecraft), Comms, Astrogation, Sensors and Navigation, and Streetwise. As he already has Streetwise o due to his upbringing in the teeming asteroid habitat he does not gain any further expertise in this skill.

After completing his basic training, his experience begins for real. In his four-year xBoat assignment, he decides to concentrate on the specialist skills that go with his job aboard the ship he is serving on. He therefore rolls 1D6 (3) and gains Space Science; Mahran chooses Space Science (Planetology) 1. The journeys he makes take him throughout the solar system and he is keen to study the characteristics of the mudballs that are so far removed from the world he has known.

But of course life in any service is not without problems. Mahran must roll for his Survival, which, for the xBoat assignment, is End 6+ (8). He encounters no mishaps in his first four years of service. Yet the term of service is still eventful. On the Events table (53) Mahran goes through a Life Event (9 - Travel to another world, +2 to next advancement roll). Mahran is re-assigned to the prime world of his solar system and, with his newly gained knowledge of planetology, makes something of a name for himself despite his youth. His Advancement roll is End 7+(7+2=9). Mahran is promoted to Messenger Second Class at the end of his first term. He also gains an additional roll on any of the skills tables. Mahran chooses to focus on Personal Development (6) and gains Comms: clearly Mahran has an aptitude for communication systems. Mahran is now 20, and has the following skills: Astrogation 0, Comms 1, Computers o, Navigation o, Pilot (spacecraft) o, Sensors o, Space Science (Planetlology) 1, Streetwise O, Zero G O.

Second Term

Mahran decides to remain with the Scouts but decides to opt for a new branch in his second term. His Comms experience makes the Covert Surveillance assignment of Special Operations a natural choice. His qualification throw is Int 6+ (11) - a success. Mahran's capabilities have not gone unnoticed by the higher-ups of the Scout service, and his Streetwise nature clearly makes him a natural for this field of work.

For his first skill in Special Operations - Covert Surveillance, Mahran selects the Specialist Covert Surveillance table (1); his Comms increases to Comms 2. His survival roll is Int 8+ for this assignment. The dice are thrown (10), and Mahran avoids a Mishap.

For his event in this term, Mahran rolls D66 again (56): Political Conspiracy. A senior official, well-connected with the political group Mahran has had under surveillance for the past three years has Mahran approached secretly by members of the Black Star Brigade to recruit Mahran into their ranks. Mahran resists the approach, valuing his role in the Scouts far more highly than this tawdry attempt to make him a traitor. As a result, he now has an enemy of the entire Black Star Brigade. However, his advancement roll – Edu 6+ (7) is a success, and Mahran gains a rank, and an extra skill. He chooses the Advanced Education table and gains Survival 1 – his runin with the Black Star Brigade has clearly taught him a few lessons in watching his back. His skills are now: Astrogation o, Comms 2, Computers o, Navigation o, Pilot (spacecraft) o, Sensors o, Space Science (Planetlology) 1, Streetwise o, Survival 1, Zero G o. Mahran is now 28 years old and desperate to put some distance between himself and the Black Star Brigade. He decides to enlist in the Exploration branch, which should get him off-planet!

THIRD TERM

To qualify for Exploration – and Pathfinder appeals – Mahran must roll End 6+ (8). Mahran joins the Pathfinder team and is assigned to a Type S Scout that is responsible for mapping new space lanes between systems. As he does not already have it, he gains Vacc Suit o upon joining this branch.

Mahran's first skill roll is made on the Pathfinder Specialist table (5); he gains Astrogation 1. Already having some expertise in Astrogation gains him the position of navigator aboard the ship, which the crew has named *Mercury Rising*. His survival roll is End 6+ (10), so there are no mishaps this term.

The Event result is (45). The Mercury Rising is diverted from its mapping assignment to rescue a stricken freighter that has been attacked by pirates (which are, unbeknown to Mahran, backed by the Black Star Brigade). This event requires Mahran to roll 1D6 for the outcome: (5). Mahran is injured during the rescue attempt, and must roll on the Injury Table (page 37 of the Traveller rules). The result is (4) – Mahran is badly scarred when debris rips through his Vacc Suit and gouges away part of his upper thigh. Mahran reduces his Endurance by 2 points, taking him down to End 4 (-1). He will also now walk with a permanent limp as his leg is in constant pain, despite the best medical attention he can be given.

As far as advancement goes, Mahran needs Edu 7+, and his decent education of 10 grants him a +1 bonus. He succeeds (6+1) and as his term of service draws to an end, Mahran is now an Exploration Officer gaining Space Science (planetology) 1. For his additional skill he chooses to roll on the Advanced Education table for Exploration (1) – he has developed Pilot (spacecraft). At the end of his third term, Mahran's characteristics and skills are as follows:

Str 8 (+0), Dex 4 (-1), End 4 (-1), Int 7 (+0), Edu 10 (+1), Soc 8 (+0) Astrogation 1, Comms 2, Computers 0, Navigation 0, Pilot (spacecraft) 1, Sensors 0, Space Science (planetology) 2, Streetwise 0, Survival 1, Vacc Suit 0, Zero G 0.

FOURTH TERM

Mahran decides to stay in Exploration and transfer across to the Analysis assignment. His knowledge of the planets and planetary systems is developing and he has a keen interest in this branch of study. Working for Analysis he has the opportunity to develop it further, and so he rolls on the Analysis Assignment table (1), gaining a Life Science. Mahran chooses Life Sciences (Cybernetics); his hope is to somehow overcome his leg disability with an implant or augmentation some day, but he also studies the way such augmentations have been used in the worlds the Exploration branch have under scrutiny.

For his Survival throw of End 6+. His roll (8) is reduced to (7) owing to his debilitated Endurance characteristic, and so Mahran avoids rolling on the Mishap table.

A roll of (33) for Events in this term. Mahran makes a breakthrough in planetary survey techniques that will save the Scouts time and money if adopted and implemented throughout the service. He gains Sensors +1 as a result of this work and he is thrilled when the Exploration branch works the exploratory techniques into its official training and survey orientation syllabus. However, Mahran receives no credit for this work and no recognition of his contribution. This is hugely upsetting, and the Int 8+ roll he is required to make is (6). Disillusioned and dejected, Mahran serves his remaining term but will leave at the end of it: he feels he has no choice.

There is, of course, a last stab at promotion, and Mahran rolls (12). He is promoted to Exploration Team Leader (gaining Leadership 1) and, because the roll was a natural 12, Mahran must remain in the Scouts for another term – even though his desire is to leave. In consultation with the Referee, it is decided that, having heard of Mahran's disillusionment, strings have been pulled to keep him in the service but transfer him elsewhere. Because of his promotion, Mahran may roll once more on any of the Exploration skills tables: he chooses Service Skills (6) and gains another level of Comms.

So, by the end of his fourth term, Mahran's skills are: Astrogation 1, Comms 3, Computers 0, Leadership 1, Life Sciences (Cybernetics) 1, Navigation 0, Pilot (spacecraft) 1, Sensors 0, Space Science (planetology) 2, Streetwise 0, Survival 1, Vacc Suit 0, Zero G 0.

FIFTH TERM

Mahran has decided this will be his last term with the Scouts, and even then, he is here under duress. He decides to return to Special Operations and is assigned to the Undercover division, investigating Black Star Brigade activities on a colony world. His training from the Service Skills table (3) gives him Gun Combat and he selects Slug Pistol as the specialisation.

The Survival roll is End 7+. His injured leg is a definite disability here, but the roll (12) means that he suffers no mishap. His Event roll is 42: Mahran is finally sent deep undercover to investigate the activities of a criminal syndicate bank rolled by the Black Star Brigade. Mahran must roll Deception 8+ (5), and so he must now roll on the Mishap table from either the Rogue or Citizen careers from the Traveller main rules; the Referee suggests Rogue, and Mahran's roll (3) sees him being betrayed by someone he considered a friend. The Black Star Brigade now know who Mahran is, and, as he has the entire Black Star Brigade as an enemy, Mahran has no option but to abort his mission and get as far away as he can from this most dangerous and persistent foe. Mahran gains a new Enemy, and he decides this will be Fetcher Lyndt, a local crime boss. Once he has managed to get away from the Black Star Brigade, and considered his options, Mahran decides that he will conclude his unfinished business with both Lyndt once and for all...

For his final promotion roll Mahran scores (11) and leaves the Scouts with the rank of Operations Leader, and a further level of Leadership skill. He also rolls on the Personal Development table and gains +1 Int.. His characteristics and skills on mustering out are:

Mahran Schaeffer, ex-Scout (5 terms), 36 years

Str 8 (+0), Dex 4 (-1), End 4 (-1), Int 8 (+0), Edu 10 (+1), Soc 8 (+0) Astrogation 1, Comms 3, Computers o, Gun Combat (slug pistol) 1, Leadership 2, Life Sciences (Cybernetics) 1, Navigation o, Pilot (spacecraft) 1, Sensors o, Space Science (planetology) 2, Streetwise o, Survival 1, Vacc Suit o, Zero G o.

He is entitled to 5 Benefits rolls for his terms of service, plus 3 for his rank – 8 rolls in total, and a +1DM to rolls made. Mahran rolls on the Special Operations branch Mustering Out table, using his maximum 3 rolls for cash benefits (3+1, 3+1 and 5+1) to gain Cr80,000. His Other Benefits rolls are: 1, 2, 4, 5 and 6. Mahran takes Gun Combat 1 to raise his Gun Combat (slug pistol) to 2, and also takes a Snub Pistol. His rolls of 4, 5 and 6, he applies his +1DM to give 5, 6 and 7. Mahran emerges from the Scouts with 3 Ship Shares and a Type S Scout – the *Mercury Rising*, no less - on loan, although his Ship Shares will be used to buy Mercury Rising from the Scout service at some point.

Mahran also has enemies in the shape of Fetcher Lyndt and the Black Star Brigade. He still walks with a limp after his space accident in the rescue mission, and the theft of his survey techniques have left him bitter and vengeful. That idealistic young man who craved travel, away from his asteroid habitat, is no more; in his place is a grizzled, clever, street-wise, communications expert who knows how to lead specialist teams. He has money in the bank, and a ship of his own.

Mahran Schaeffer has scores to settle ...

Scour Missions

An advantage of serving with the Scouts is that the Scout service often needs to call on the skills and expertise of its retired personnel. Scouts have the opportunity to train and develop in very broad areas, affording them a portfolio of diverse skills. Furthermore, as Scout activities take personnel on very long voyages to very distant places, the existing, active ranks can be easily depleted. The answer is to call upon retired personnel to return for one-off missions. To ensure compliance, the enlistment process when first joining the Scouts makes it clear that retired personnel can be recalled to active duty at any time, and that ignoring that summons comes with certain penalties (see page 26).

Additionally, in wartime, many scout services are militarized and activated as auxiliary forces attached to regular military formations and groups. Most typically this involves utilizing the extensive surveillance activities in tactical and strategic situations; however, their in depth knowledge of cultures and planets may also be tapped to assist military operations or recruit, organize or soften up and disrupt locals before or instead of direct military action. Most of the missions described below can be recast as military missions by the referee as needed. In general, scouts are recalled for the duration of the conflict, and posted within military formations (generally they are provided with a courtesy rank as appropriate). Pay and benefits are unchanged from standard peacetime reactivation.

Keeping Tabs

The identity papers and cards all ex-servicemen carry identify retired Scouts as such. Every spaceport an ex-Scout passes through notes his presence; hotel rooms record how long he is staying for and in which room; in other words, the Scout service (and typically the Covert Surveillance teams of Special Operations Branch) knows where its retired personnel are, have been, or are likely to be. It can track you down, even over long distances, and if you have the skills and expertise it requires for a particular assignment, it will go to great lengths to find you. A small though crucial part of the xboat system is devoted to keeping local scout stations updated as to the presence and status of retired scouts, and similarly, to keep central scout offices apprised of the location of same.

Most retired Scouts understand this and do not try to hide from the Scout service, or avoid being recalled. The Scout service pays well and offers a steady stream of work on terms that can be negotiated. If a retired Scout has associates that will be an asset to the mission, then the Scout service will generally consider hiring them too – if it can be proved that they will add value. Similarly, the scout service has no motivation to force compliance from a retired scout who is genuinely unable or incapable of carrying out a needed assignment. This chapter describes Scout Missions for retired Scout characters. It effectively places the Scout service in the role of patron, and acts as a catalyst for *Traveller* adventures. The system presented here is akin to the Ticket system from Mercenary – the overall process is largely the same – but with subtle differences to reflect the broad remit of the Scout service.

TOTAL RECALL

Scouts are recalled to service in many different ways. Here are the three most common.

- Scout Information Network: SIN. This electronic bulletin board is monitored by Special Operations and every Scout, active or retired, is automatically given a SIN account, allowing messages to be posted. SIN generally operates as a direct information net within a system, and data communications between systems are given priority on xboat or courier communications routes. If SIN is used to recall a Scout, he will usually be directed to the nearest Scout base where mission details will be given, and the contract negotiated with the administration team.
- Special Operations Contact: Scout Spec Ops operatives have, as a routine part of their work, the task of tracking and recalling retired Scouts. Typically a Scout will be approached either by a known Spec Ops contact, or will be contacted to arrange a meeting (which may be at a scout base or a public location, such as a hotel or bar). The Spec Ops agent will usually have full mission details and have been given authority to negotiate specifics of the mission and the remuneration package.
- Scout Base Protocol: If a retired Scout is passing through a space port that is in the vicinity of a Scout Base, standard security procedures at the space port will arrange for the ex-Scout to be directed through fast-track channels which result in the Scout being taken directly to the Scout Base. Here, Admin teams outline the mission and negotiate its terms.

The degree of secrecy involved in recalling a Scout depends on the sensitivity of the mission. Survey, Exploration and Courier missions are often highly routine with little or no secrecy needed. However Contact and Special Operations missions may be highly sensitive, with espionage-service levels of secrecy and discretion being employed to protect the mission's (and its personnel's) safety.

Any Scout who refuses a mission without good cause risks a fine of Cr20,000 or 2 years imprisonment. Obviously there is a chance that he can talk his way out of an assignment without incurring either penalty. Refusing an assignment without obvious or good cause and dodging the repercussions is a Diplomacy or Persuasion task if the rejection is based on good cause; but is Very Difficult (-4) if not. In wartime, an additional -2 is applied to both situations. Note the Effect of the attempt:

MISSION REJECTION EFFECT

Effect		
-6	As below, but including the 2 year prison term.	
−2 to −5	The character is fined Cr20,000. If he has a Type S Scout on loan, it is reclaimed immediately by the Scout service. If he has Ship Shares, these are invalidated. These can be offset by serving 2 years in prison, or, in wartime, transferring to active service in a military arm. Note that enlistment MUST be rolled for, and if not successful, the alternate penalties are assessed. Alternately, roll for the draft.	
-1	The character is fined Cr10,000 credits or any scout loaned ship In wartime, this can be avoided by transferring to active service in a military arm. Note that enlistment MUST be rolled for normally, with a bonus of +2; if not successful, the alternate penalties are assessed.	
0	The character talks his way out of having to accept this mission, but must accept another one within 6 months.	
1	The character talks his way out of having to accept this mission, but he may, if he wishes, choose another mission, and its type.	
2 to 5	The character talks his way out of having to accept this mission; when he is next approached, the pay will be increased by 15%.	
6+	The character talks his way out of having to accept	

6+ The character talks his way out of having to accept this mission; when he is next approached, the pay will be increased by 25%.

MISSION STRUCTURE

Scout missions follow a similar structure to Mercenary tickets: characters have the opportunity to negotiate and influence on some of the finer details. The employer is always the Scout service, with the branch that performs the recall acting in sole regard for the mission, but according to standard Scout service contracts and protocols.

Employee Details

The focus of the mission contract is the ex-Scout. He is named as the Primary Contact and is used as the leader of record for the mission even if, in reality, another member of the team will act as leader. The ex-Scout therefore carries the full responsibility for the mission's success.

It is at this stage that the ex-Scout names those who will be drafted into the mission, although the ex-Scout must vouch for each mission member he intends to draft into the frame, summarising their credentials and experience. The Scout service always has veto over mission members and, if members of a group are not thought to be acceptable, then the contract can be terminated at this stage. Alternatively, if the mission requires other, retired Scouts, they will be named and drafted in at the Employee details stage, so that specialised ex-Scout teams can be assembled and controlled in a contracted framework. The Primary Contact may use Advocate, Broker or Admin to convince the employer of the suitability of those he intends to draft into the mission. A roll of 8+ per additional mission member is needed to successfully convince the Scout service of their credentials. Non Scouts are paid a standard two thirds of the ex-Scout's mission fee: this is generally non-negotiable unless the additional members have particularly valuable skills for the mission, in which case the fee may rise to 90% of the Primary Contact's fee, but never exceed it.

Note that in wartime, non-scouts need not participate, but once they agree to do so, they are treated as civilian volunteer auxiliaries to the scout service, and qualify for 90% pay in all cases. This status is for the duration of the emergency or activating event, and requires a very difficult (-4) roll against Admin to leave service before deactivation: note the result and apply to the above mission rejection table.

Service Required

Arguably the most important section on any mission, this is where the actual business of the contract is listed. Unlike other areas of the mission, where ambiguity might be useful, the services section needs to be as detailed as possible for the benefit of both parties. If the services are drafted too vaguely, the mission could be misinterpreted and the job done improperly. The employer wants the mission to be precise in order to get the job done right; the employee wants the service to be explained as plainly and specific as it can be. The result is hopefully a clear image of exactly what they have to do to get paid. This is relevant to both peacetime and wartime activation.

Pre-Mission Support

There are some missions that require special equipment or services to occur before the employee can begin to fulfil the services. Some employers will understand this fact and arrange for this special support as part of the mission assignment process. If a mission's services are going to be difficult without certain gear the employer is frequently expected to at least offer the funds to equip themselves, if not the equipment itself.

If a local Scout base can supply the agreed equipment, then it can be drawn from stores. Otherwise the Scout base assumes responsibility for ordering it and the team will need to wait until all equipment is available before the mission can commence.

Post-Mission Support

Things unfortunately happen while in the course of a mission's fulfilment that cannot always be expected, and sometimes the employer makes ready for that. Items attached to a mission like assisted health care, rearmament fees, or something as simple as evacuation transportation can be placed under post-mission support. This section of a Scout mission is dedicated to what the employer is willing to do for the employee after a mission's service has been met, beyond simple financial payment. The Scout service has a standard Post-Mission Support template which includes the following elements:

- Medical expenses for 6 months after the conclusion of the mission.
- Repatriation process should the mission need to be extracted from a difficult situation. This is handled by Special Operations.
- Legal fees for 6 months after the conclusion of the mission.
- Family financial support for one year for the Primary Contact if the Primary Contact is unable to work owing to the circumstances of the mission.

The Primary Contact can use Advocate or Broker to improve upon these terms depending on the success of the roll. Additional team members are not allowed to participate in this section of the contract.

Compensation Package

Unless the Primary Contact has negotiated a higher compensation package, the salary paid is as follows:

Term of Employment	Salary – Primary Contact	Salary – Additional Members
< 6 months	Cr24,000	Cr14,400
6 – 12 months	Cr36,000	Cr21,600
12 – 24 months	Cr54,000	Cr32,400
24 – 48 months	Cr81,000	Cr48,600
48 – 60 months	Cr122,000	Cr72,300
60 months +	Cr183,000	Cr109,800

CREATING MISSIONS

This section cover the process of creating a Scout service mission step by step, in much the same way as *Mercenary* covers the creation of mercenary tickets.

STEP ONE - EMPLOYER DETAILS

This is always the Scout service, but separate branches decide upon and administrate their own missions. A branch will usually recall someone who has served in its ranks before, but this is not an absolute pre-requisite. A retired Scout may find himself being recalled by a branch that he had no previous contact with whilst a serving Scout. If a random branch is required, roll 2D and consult the following table:

EMPLOYER DETAILS

2d6	Branch
2-3	Contact
4-6	Courier
7-9	Exploration
10	Special Operations
11-12	Survey

STEP TWO - EMPLOYEE DETAILS

This is in the hands of the branch doing the recall and recruiting. The branch may require specific skills, knowledge or experience, or simply need a reliable person to organise and administrate the mission on their behalf. Where specifics are needed, it is an opportunity for the Primary Contact to negotiate a higher compensation package or improved post-mission support terms.

STEP THREE - SERVICE REQUIRED

Scout missions are always highly specific and work to SMART principles:

S – Specified goals and objectives

M - Measurable in terms of outcomes and deliverables

A – Achievable, in terms of risk and outcome

R - Reasonable, in terms of what is expected of the recalled Scout

T – Time-constrained. Time limits and deadlines are always attached to any Scout mission

When creating Scout missions, Referees should keep the SMART principles in mind; the Scout service has finite reserves and, whilst it has a broad remit, is constrained in the areas it can operate. If it oversteps this remit, then others, such as the Army or Navy, may be engaged to perform the same activity with a much lower cost and risk.

Each branch of the Scout service has specific mission types it can recruit for, and the tables in this section define these mission types by branch.

The Mission Type column names the kind of mission a branch will require. The Compensation Multiplier is the factor that can be applied to the payable salary if the Primary Contact can make a Broker 8+ throw. The Compensation Multiplier is applied only to the ex-Scout's compensation; if he wants to increase the salary for non-Scouts, he must make separate Broker 9+ rolls for each team member.

CONTACT MISSIONS

1d6 Result	Mission Type	Compensation Multiplier
1	First Contact	1.5
2	Re-contact	1.1
3	Holding Diplomacy	1.5
4	Translation	1.1
5	Liaison	1.2
6	Study	1.2

CONTACT MISSIONS

Contact missions fall into two general categories: first contact and re-contact. Both are discussed in detail below. What is important to note is that the main definition of a contact mission is not necessarily revealing the presence of the larger universe to the natives (although this can be the goal); rather, it is physical contact



with the culture by scout agents, and is generally defined by "Boots on the ground" surveillance rather than covert orbital survey. Thus, many first contact missions have an extended period of extremely covert investigation of the culture; often involving secretly inserting survey personnel into the culture where possible. In particular, direct human surveillance is often preferable to drone or robotic survey when assessing low tech cultures

First Contact

The mission involves making first contact with a new alien race. It will require the team working with existing Contact branch operatives and generally in a support function unless the Primary Contact has particular expertise that determines he should take a lead role in the overall mission. It is important to note that this contact may or may not be covert, ranging from a very limited direct study followed by gradual expansion of contact to the classic "saucers appearing over government buildings on worldwide feed" model. Again, contact is defined by actual presence on the planet in question.

Re-Contact

The mission involves establishing contact with a neglected, isolated or forgotten outpost, colony or planet. Re-contact missions can be highly sensitive; contact might have been severed acrimoniously, and re-contact may require delicate negotiations and attention to local sensitivities and sensibilities. Re-contact teams have been held as ransom collateral in return for other benefits – financial, political or technological. As with first contact, this may be covert or overt.

Holding Diplomacy

First Contact and Re-contact assignments often require a Holding Diplomacy element. Holding diplomacy involves establishing rudimentary, but effective, diplomatic structures (framework agreements for trade; expressions of interest in scientific matters, and establishing embassies and the like) whilst a full diplomatic corps is assembled and sent to take over the full ambassadorial responsibility. The Scout service provides such 'holding' functions, relinquishing them once a full diplomatic team comes into force. The Contact branch briefs the diplomatic corps, transfers its knowledge and acts in a transitional capacity before withdrawing altogether. This is again sensitive and delicate work requiring individual skilled in establishing relationships and setting the groundwork for future co-operation.

Translation

The Scout service has an extensive Translations wing which, depending on Tech Level, is backed-up by powerful translation software and equipment. These missions involve the Scout service acting purely in a translation capacity, using linguistics teams to accurately convey meaning and nuance in the transcription of new or little understood languages. While translation software is generally available and accurate, the scout services generally prefers to use human agencies in combination with automated or artificial communication protocols.

Liaison

As relations with new races or re-contacted outposts are developed, the Scout service retains a liaison role to support whatever systems are put into place for future communications. As the Scout service is skilled in dealing with new discoveries and managing the important early stages that follow them, advisers from Contact are assigned to governmental, diplomatic and military bodies to provide counsel and guidance. Often, a liaison officer will be required to administer and or make decisions for local organizations and polities far beyond his usual level of authority.

COURIER MISSIONS

1d6 Result	Mission Type	Compensation Multiplier
1	xBoat – general messenger	1.1
2	xBoat – secure messenger	1.2
3	Relay	1.1
4	Cyphers: Peacetime	1.2
5	Cyphers: Wartime	1.5
6	Special Communications	1.3

xBoat – general messenger

In civilisations with no FTL communications, the Scout service offers a constant message transit service across the space lanes, ferrying general communications, mail, orders and so forth to distant planets. It then collects the same and takes the messages to the next destination. The Scout base for a system acts as the

SCOUT MISSIONS

sorting office for mail, providing encryption, security scanning and so on, before designating which cargo of messages is assigned to which vessel. Scout xBoats generally stick to fixed routes in order to optimise the time for message despatch and delivery, but sometimes will undertake bespoke messaging missions that are off the beaten track or require special attention. In these cases, retired Scouts are often recalled and used to minimise disruption to the standing xBoat service.

If a recalled Scout has a capable ship, then he is expected to use it: any Scout who leaves the service with an entire ship has it under loan, and must return its use if called upon. The Scout service pays all fuel, maintenance and spaceport costs, but the owner is expected to provide the crew. If the Scout does not have a ship of the appropriate type or speed required, he is loaned one for the duration of the mission.

xBoat - secure messenger

Whilst most military arms have their own messenger services, the Scout service is frequently called upon to relay important military information between systems, especially where military vessels may be vulnerable to interception. The Scout service uses its own encryption logarithms quite separate from military encryption (although to a military level), and its fleet of unmarked fast courier vessels mean that the Scouts often provide a more attractive secure messaging service than a military's own. Occasionally the Scouts find themselves ferrying communiqués that the military wants to disavow and are therefore better conveyed under independent auspices.

Non-military parties, such as corporations, governments and wealthy individuals also hire the Scout service to take secure messages on their behalf.

Secure messenger missions usually involve ferrying military or highly sensitive information on non-standard routes, to a specific destination (sometimes even a named individual) and to specific timescales. Retired Scouts are recalled for such missions because disavowing their involvement is easier, and because it places no strain on the existing service infrastructure. However recalled Scouts who are taken on for such missions usually have to sign many disclaimers and agree to limitations in repatriation packages, depending on the nature of the material being conveyed.

Relay

Where messages need to be taken over very long distances, xBoats rendezvous with a Relay station, which is a remote Scout base where messages are left or downloaded and then picked-up by another ship which continues the message run. Relay stations are also used to disperse disparate messages that can travel a certain portion of a route aboard a single xBoat but must then be distributed along separate routes by other ships.

Ciphers: Peacetime

Generally, xboat traffic must be encrypted upon receipt regardless of the source; later cryptographic and compression transformations are applied as needed, and requested by the scout service. This obviously can be waived for military and diplomatic transmissions, especially in wartime.

The Scout's Cipher division of the Courier branch specialises in encoding and decoding messages to specific security requirements. Its cipher algorithms are internally designed and highly respected. Even basic messages are usually encrypted at a reasonable level to ensure privacy. In peacetime, Cipher missions generally involve the Scout encrypting and decrypting ciphers at a Scout base or Relay station. The work is there to deal with a backlog or provide additional support.

Ciphers: Wartime

Cipher missions during wartime are far riskier. This is the encoding of messages to a particular, military grade cipher, transporting the message into hostile territory and then deciphering it for the recipient. This assignment seldom involves the retired scout in the encryption process, but rather involves him in the physical delivery of the message. The ciphers used are known only be the deliverer – so the ex-Scout brought in to handle this level of mission is expected to be skilled in survival techniques as he is likely to be entering highly hazardous conditions.

Special Communications

Special communications missions are those designated with a high-security, high-priority status, usually requiring delivery of the information in a special format (such as a memory implant or other, highly specialised medium) to a named individual. These missions generally have high levels of risk, even during peacetime, and may require the carrier to agree to a raft of waivers in return for a much higher than usual completion fee. If the carrier is working with a team, then the mission may have a more routine cover with other members of the team being completely unaware of the true nature of the task.

EXPLORATION MISSIONS

1d6 Result	Mission Type	Compensation Multiplier
1	Planet Exploration	1.1
2	System Exploration	1.1
3	Anomaly Exploration	1.2
4	Artefact Exploration	1.2
5	Cultural Exploration	1.2
6	Covert Exploration	1.5

Exploration missions are generally high-level reconnaissance missions designed to assess general conditions and risk before a

detailed survey team (which may or may not include the original exploration team) is sent-in to take an in-depth look.

al Cultural Exploration

Planet Exploration

Planet Survey missions involve the reconnaissance of a new or barely known world. On a 2d6 roll of 7+, the mission is the fairly common version which requires undertaking the survey from orbit. If the result is from 4-6, the survey will require actual landing to assess physical parameters or anomalies.

on a 2-3 result, there is a specific anomaly which must be investigated, other than from orbit (surface based, subterranean, undersea and so on) the survey from high orbit with a few dips into the atmosphere, but otherwise to refrain from landing unless specific orders are given to do so. Orbital missions may be framed in terms of general objectives: to understand the general atmospheric conditions, geology, geography, tectonic activity, and so forth, or may have a more specific nature – to search for particular natural resources, for example, or assess the suitability for habitation. In general, missions involving a landing will have specific goals, and will not also require the more general (but extensive) investigation on a planetwide basis. In many cases, reports from a previous orbital Survey will be available (5+)

System Exploration

A system survey is a high-level sweep around and through an entire solar system, noting the position and orbits of planets, gas giants, asteroid belts and other stellar features, but stopping short of individual planetary surveys. The survey team will be under instruction to note the trajectories of comets, the characteristics of planets and their satellites and, naturally, the star itself. These are lengthy missions by their very nature and seek to establish the overall picture of a solar system that will be supplemented by more detailed surveys later.

Anomaly Exploration

Anomaly surveys are missions designed to investigate particular stellar anomalies, such as scientifically important stars exhibiting rare characteristics, or the investigation of rare astronomical events. Again, these tend to be long-term missions and may even form part of a System Survey mission.

Artefact Exploration

As this mission suggests, it involves the study of discovered artefacts: either located on a planet or space-born. Like all exploration missions, artefact study missions are deliberately high-level 'what is it, how old is it, what might it do?' reconnaissance trips designed to assess and quantify risk before the detailed scientific study groups from Survey or third party agencies become involved. They are, however, secretive missions. Any newly discovered piece of technology is an exciting find and, as the item might yield considerable wealth, the Scout service is at pains to keep its work a secret from exploitative eyes until the time it has to hand over the study to others. The high-level study of a new culture. A frequent goal is to assess the cultural suitability or tolerance for overt contact. Before the Contact branch becomes involved, using First Contact protocols, the Scouts commence a study of the civilisation to define its relative technology level, military capability, and so forth. The mission is forbidden to make contact, and so it is a covert operation as far as it possibly can be. Much of the work is done from orbit and as discretely as possible. If a civilisation under study has spacefaring capabilities, then Contact might be called in sooner rather than later, but otherwise the study notes and assesses what it can before passing the data onto Contact and offering a full briefing to the Contact teams that will establish formal communications with the species.

Covert Exploration

This covers any mission where stealthy exploration is needed. This might form an advanced reconnaissance for any of the other Scout branches or one of the military services. A stealth-equipped ship is essential (see page 56), and the surveillance equipment is cutting edge. It should be noted that this differs somewhat from classic wartime or hostile relations espionage. Generally a covert survey involves a much smaller target, one which may or may not be aware of the larger universe or the Scout services polity. Wartime and high level hostile espionage is generally subsumed under Special Ops missions described below. If a covert Exploration team is detected, it can expect to be disavowed unless its presence can be explained without damaging political or military repercussions.

SPECIAL OPERATION MISSIONS

1d6 Result	Mission Type	Compensation Multiplier
1	Undercover - Political	2.0
2	Undercover - Military	2.0
3	Covert Surveillance - Political	1.5
4	Covert Surveillance - Military	1.5
5	Espionage - Political	2.0
6	Espionage - Military	2.0

Special Operations missions are often conducted within newly discovered or re-contacted societies where surveillance and espionage operations are deemed an essential part of forging a stable relationship – as counterproductive and contrary as that might seem. They also reflect the assignments that scouts receive when war heats up, or when diplomatic relationships are decaying or actively hostile. These missions should not be confused with the kind of espionage and spying missions members of the Agent career undertake; they are concerned with societies that are newly contacted and therefore within the Scout's sphere of influence, or with the scouts activation as a military service in wartime or in times of emergency.



Undercover - Military and Political

These missions generally involve a Scout operative gaining acceptance within a specific group of people to advance political or military knowledge. Posing as civilian members of a separate agency, the operative's chief regard is to gain the trust of the group and then to discreetly extract, and feedback, as much information as possible. Missions of this nature may take months to establish as trust is gained, but be over within days or weeks once the information required has been gathered. Note that this also covers contact missions of this nature are rare; and naturally exceedingly difficult, and so missions of this type are only undertaken by recalled personnel in the most pressing of circumstances.

Covert Surveillance - Military and Political

Covert surveillance missions are remote spying and eavesdropping missions, turning the Scout's survey, linguistics and cipher technology to espionage ends. Operatives track and monitor the movements and communications of a designated target, either planetside or, more commonly, from a suitably equipped orbiting vessel. The mission might entail general communications monitoring to establish the nuances of a political or military situation, but usually a specific goal is attached to the monitoring activity. The classic example of such a mission is the cold war "fishing trawlers" of the KGB or the CIA. Other situations may involve the scouts in direct surveillance and recon work for a hot war.

Espionage - Military and Political

Where covert surveillance or undercover work are insufficient, espionage tactics are employed. These are specific missions with varied contents, ranging from trailing a target, through to gaining access to secret documents and copying them, and up to blackmail and honeytrap operations. Again, such missions are rare and not to be confused with the work of the Agents career, but do occur from time to time. Special Operatives might be called upon to change the progress of a war, a political situation or even the development of a society, depending on the local circumstances and the overall agenda of their home civilisation. Operatives may spend weeks, months or years in the field, working both undercover and in covert operations to bring about their mission's success.

SURVEY MISSIONS

1d6 Result	Mission Type	Compensation Multiplier
1	Planet Survey	1.1
2	System Survey	1.2
3	Anomaly Survey	1.3
4	Artefact Survey	1.2
5	Civilisation Survey	1.3
6	Covert Survey	1.5

On the face of it Survey missions might seem very similar to Exploration missions. However, Survey missions tend to be very specialised, medium to long-term engagements. Survey teams focus on one particular subject and delve into its nature exhaustively. Most survey missions are highly scientific in nature and require specialists in their particular fields: the outcomes of missions can make reputations, alter scientific thinking and reveal remarkable insights into a planet, a star, its system or its galaxy.

Planet Survey

Planet Survey missions involve the detailed surveying of a new or barely known world. The mission team is required to undertake lengthy surveys from both high orbit with and the surface, working with the initial reports provided by the Exploration teams. The outputs of the survey mission will inform future views and missions, including colonisation programmes and terraforming: accuracy is therefore essential.

System Survey

A system survey focuses on a particular facet of a solar system and works to understand it completely. This might be the trajectory of a comet, the orbit of a gas giant around its sun, measuring the legrange points of a gas giant, mapping a moon, or studying the chemical reactions happening within a newly formed or dying star. Whatever the subject, the work is exhaustive, with missions crews spending long periods in space, often at the far reaches of known space territories.

Anomaly Survey

Stellar and interstellar peculiarities are the focus of anomaly surveys. Picking up from a high level expedition, the survey team focuses one hundred percent on the nature of the anomaly, attempting to understand, define and then predict its nature and behaviour. Depending on the anomaly, a comet with particular characteristics, a dying star, a neutron star, dark matter and so forth, this could be dangerous work.
Artefact Survey

Artefact surveys are usually conducted in-situ but may, on occasion, involve bringing an artefact back to a Scout base or specially hired laboratory. Either way, this is the exhaustive study of any kind of artefact, be it a building, architectural curio, satellite, probe, city, tomb or weapon. The missions are, again, scientifically specialised and very often long-term as the aim is to fully understand the object under scrutiny.

Cultural Survey

Civilisation surveys require the survey teams to embed themselves within the society under scrutiny. Experts in social behaviour, political behaviour, linguistics, biology, psychology and all manner of life sciences spend anything up to a year or more, ingrained within a newly discovered society, learning its structures, beliefs, practices and cultural framework. This type of mission typically follows an exploration mission, and precedes a contact mission. This is one of the few non-contact branch missions that may involve actual interaction with the culture in question, although all such contact will be covert.

Covert Survey

Covert survey missions operate in hostile or potentially hostile territory and may be any of the above missions, but are conducted in absolute secrecy. The Scout service ensures that appropriate equipment is placed at the disposal of the covert survey team, but otherwise the risks are high, especially where the chance of capture is heightened. This may involve deep penetration or behind the lines recon missions in wartime; or in peacetime, standard survey missions in hostile areas, or actively isolate or xenophobic cultures.

SCOUT BASES

Any society operating a Scout service, and capable of interstellar flight, deploys Scout bases across its area of operations.

Bases vary in size and range of functions, but offer a range of standard services:

- Berthing and launch of Scout vessels
- Refuelling and fuel purification
- Message deposit, collection and dispersal
- Mission briefing and debriefing
- Scout and ex-Scout accommodation, social and recreation facilities

Most bases are located within, or close to, a spaceport, sometimes with shared facilities, depending of the class of the base, but usually with independent facilities. Any starport of class D or above has the chance of hosting a Scout base according to the following table:

Starport Class	2D throw for Scout Base Presence
Α	10+
В	8+
с	8+
D	7+

As the class of the starport rises, there is a lesser need for the facilities Scout bases traditionally offer to both Scouts and other spacelane shipping. Therefore Class A starports are less likely to agree to a Scout base being sighted on the premises or close-by because it can offer fuel refining and a host of other services at a far more competitive cost.

When a Scout base is present, its facilities are determined by its own Scout Base Class. Facilities offered are generally inversely proportional to the class of the starport. Roll 2D and apply the relevant DMs to determine the Scout Base Class.

Roll	Scout Base Class
2 or less	E
3	E
4	E
5	D
6	D
7	с
8	с
9	В
10+	Α

DMs

Starport Class A –3 Starport Class B –2 Starport Class C –1

The facilities offered by Scout Base Class are:

- Berthing and launch of Scout vessels
- Refuelling and fuel purification
- Message deposit, collection and dispersal
- Mission briefing and debriefing
- Scout and ex-Scout accommodation, social and recreation facilities

	Berthing	Fuel Refining	Message Services	Mission Briefing/ Debriefing	Scout Facilities				
					Accommodation (Serving Scouts)		Social & Recreation Facilities		Medical Facilities
Α	Х	Х	Х	Х	X	X	Х	Х	Х
В	Х	Х	Х	Х	X	X	Х	Х	Х
С	Х	Х	Х	Х	X	Х	Х	Х	
D	Х	Х	Х	Х	X				
Е	Х	Х		Х	Х				

Berthing

Every Scout Base has excellent berthing facilities. These include centrally controlled, semi-intelligent approach, docking and landing instrumentation, landing bays and areas to accommodate hulls of up to 500 tons, cargo loading and unloading equipment (lifters, drones and robots), and repair facilities. Repair facilities are a staple of the berthing services: Scout vessels of all sizes undertake long and frequent journeys and so maintenance, servicing and general repair are essential at any base.

- Class A and B bases can handle complex repairs to flight systems, life support, weapons, specialised equipment, drives and auxiliary systems.
- Class C bases can handle all the above with the exception of specialised equipment, although the expertise and tools needed to effect repairs can be brought-in given time and sufficient notice.
- Class D and E bases cannot offer repairs for specialised equipment or weapon systems, although, like Class C bases, can import such facilities given time and notice.

Serving Scouts receive all maintenance and repair services free of charge. Retired Scouts must pay, but do so at a lower rate than for standard starport maintenance charges. Scout bases offer retired Scouts maintenance at 0.075% of the vessel's total cost.

Fuel Refining

Every base offers fuel refining and refuelling as a standard service. Serving Scouts receive refined fuel, and may have any unrefined fuel they carry refined, free of charge. Retired Scouts qualify for refined fuel at a cost of Cr350 per ton, and having unrefined fuel treated at a cost of Cr100 per ton. Scout bases *never* offer unrefined fuel; the chance of a mis-jump or other accident associated with using unrefined fuel is a risk the Scout service is unwilling to undertake.

Message Services

All bases except Class E offer messaging services: that is, the collection of messages (this includes transmissions, documents/ manuscripts, packages, parcels and other larger materials) brought

by xBoat or other Scout vessel, and then either transmitted, using long-range (either laser or maser communicators) comms devices, or carried through to the final destination within the system using in-system craft (such as a launch, pinnace or shuttle – see the Small Craft section of the Traveller main rules, page 132 – 133).

Any message is automatically scanned for potential dangers, using excellent quality X-Ray, radar, thermal imaging, radiation detection, bio-hazard detection and anti-virus equipment. Every message is subjected a barrage of checks before it is released, and any encryption is verified against standing Scout service security software to ensure veracity. If a message is believed to pose any potential danger it is erased or destroyed, with a full log and report being issued to both sender and recipient as to the nature of the danger detected. Where messages are of a secret or highly sensitive nature (the level of encryption and associated metadata and security used indicates this), then the Messaging team uses its highestlevel Scout operatives to handle the message's distribution and dissemination. Scout bases are renowned for their discretion and rigorous, trustworthy security procedures and it is rare for breaches of the extensive security protocols to take place.

Alternatively, the base offers a notification system to those awaiting messages so that the recipient can arrange to come to the base and collect the message personally. The Messaging Centre contains a series of private areas where messages can be collected/displayed/ opened in complete privacy. Those arriving in person to collect or view messages are subject to a screening and verification process, involving, where necessary, fingerprint, iris, voice and DNA recognition systems to identify the recipient. See Messaging Equipment on page 49 for more details.

Messaging costs are born by the sender. However, if personal collection is required, the Scout base levies a charge based on the type and security of the message being handled. Private citizens, corporations and military services have to pay for these facilities: it is a considerable source of revenue for the Scout Service.

CHARGES FOR PERSONAL MESSAGE COLLECTION

Message Type	
Standard message/document/parcel with no or minimal security	Cr20
Message requiring standard decryption	Cr100
Message requiring advanced decryption	Cr300
Message requiring dedicated, specialised, secret or sensitive handling	Cr600 – Cr1,000
Military Orders/Secure Communications	Cr5,000 – Cr10,000

Military bases in a system generally have an account with the Scout base, as might corporations and government agencies. Discounts are offered for frequent message handling.

Mission Briefing and Debriefing

All bases operate mission briefing and debriefing services. This is essentially a bureau service where serving and recalled Scouts can be issued with orders, arrange contracts, and debriefed on particular assignments. Larger bases (Class C and above) have a team of dedicated mission briefing operatives whilst smaller bases have only one or two trained mission briefing personnel to handle the administration and intelligence gathering/dissemination required for a mission. Class A and B bases offer psychiatric facilities in addition to the standard de/briefing functions, and these are employed on a regular basis as part of routine check-ups for serving Scouts who have been engaged on long or arduous missions.

Accommodation

The standard and style of accommodation tends to reflect the class of the Scout Base. Class A bases have private staterooms, en-suite, with personal communications channels and equipment, whilst Class D and E have shared dormitories and only the most basic facilities for food and hygiene. Serving Scouts are entitled to free accommodation; retired scouts are entitled to accommodation if available, but are charged at a standard rate of Cr10 per night for the most basic accommodation and up to Cr20 for higher class accommodation. Whilst Class D and E bases do not necessarily offer accommodation for retired Scouts, if room is available it will generally be made so – although serving Scouts always take priority.

Social and Recreation Facilities

As serving bases, social and recreation facilities tend to be minimal: one does not find casinos or high-class restaurants in any Scout Base; but the quality and range is, again, dependent on the class of the base. A typical Class A base will have, for example, a gym, a reasonable restaurant and bar, and sometimes a sports hall, small leisure area (with gambling/gaming machines) and, if the technology supports it, facilities such as a small holodeck or Virtual Reality facility. Class D and E bases will have a basic canteen serving pre-prepared and reconstituted rations and limited stocks of alcohol or other stimulants (depending on the Law Level of the system and the attitudes towards them).

Scientific Facilities

Class A, B and C bases offer scientific facilities: that is, fully equipped laboratories, with trained staff, to handle Space and Planetary sciences. Class A and B bases operate full astronomical observatories with a range of telescopes (radio, optical, mass spectrometry, and so forth) for system and interstellar mapping. Anyone with expertise in Space or Planetary sciences will find the facilities they require for extensive laboratory research necessary after field research is completed at A and B class Scout bases. Class C bases are somewhat more limited in their capabilities, but are still good enough to support most Space and Planetary fields of study.

Class A bases also support cipher and linguistics laboratories. These specialised branches examine little known or newly discovered languages in an attempt to conduct a translation and also have the facilities to create and analyse ciphers and codes across a multitude of levels: from the most basic up to military-grade, multi-layered, digitally protected, encryption techniques. It can take months or years for a linguistics lab to complete its work, depending on what is being studied, and the bulk of their work is concerned with ciphers and encryption/decryption. However where language translation is required, linguistics specialists from across the Scout service might be brought into one place to study a language intimately in a bid to understand its characteristics, nuances and structures to formulate working dictionaries and translation equipment.

Medical Facilities

Every base can provide basic first aid care, but only Class A and B bases have anything approaching true hospital care – and even then facilities are limited by the size of the base and the availability of dedicated medical expertise. Where a base has a hospital wing, it is generally only large enough to handle 2d6 patients at any one time. The hospital wing has an operating theatre and surgical equipment (either fully automated, depending on tech level, or requiring human surgeons), and a small Intensive Care Unit and basic trauma facilities. However, advanced medical care for diseases, extremely serious injuries and other life-threatening conditions are beyond the Scout base's scope. What a Scout base hospital can do is save and preserve life before arranging for transportation to a hospital capable of handling the rest of the care.

Serving Scouts receive any hospital care free of charge. Retired Scouts may use the facilities at the standard charge as outlined on page 94 of the Traveller rules.

Ships at Scout Bases

The Scout service operates many types of vessel, but most commonly the Type S Scout. The ships that can be found docked or available at a Scout base depend on the base's class. The table below shows the chance of the type of ship being present (a 2D roll), following by the dice code to determine the number of vessels present at any given time:

Class	Type S	Туре А	Lab Ship	Launch	Pinnace	Shuttle/Cutter
Α	2+ (2D+1)	6+ (1D)	8+ (1d3)	4+ (2D+1)	6+ (1d3+1)	7+ (1d3)
В	2+ (2D)	7+ (1D)	9+ (1)	4+ (2D+1)	6+ (1d3+1)	7+ (1d3)
С	2+ (2D)	8+ (1D)	11+ (1)	4+ (2D)	7+ (1d3)	7+ (1d3)
D	4+ (1D)	9+ (1D)	-	4+ (1d3)	8+ (1d2)	8+ (1d2)
E	6+ (1D)	10+ (1D)		4+ (1d3)	8+ (1d2)	8+ (1d2)

All vessels appear in the Traveller rules Spacecraft section.

Whilst the ubiquitous Type S is the commonly used and seen ship, Scout bases use a variety of vessels according to the needs of the mission. Type A Free Traders are used for certain messaging runs and moving cargo; Laboratory Ships are used for scientific missions and are outfitted for long periods within star systems. Launches, Pinnaces, Shuttles and Cutters are all used within systems for short-haul trips, reducing the wear and tear on the workhorse Type S.

Most ships are either engaged in active service or are undergoing routine maintenance (usually a third of ships berthed are undergoing some form of dry-dock work). A serving or recalled Scout that has to undertake a particular mission will be assigned a Type S unless a ship of a different type is essential to the mission's outcome. If a Scout character wants to requisition a ship of a type different to the one assigned, he must roll Admin, Broker of Persuasion 8+ to convince the Mission Briefing Officer of the compelling need.



Scout Base Cygnus X-3: Sample Scout Base

Cygnus X-3 is a typical Class A or B base attached to a Class B or C starport. The starport is a standard interstellar port authority installation; as relations with the local government are good, and conditions on the planet adequate, there is minimum security along the perimeter line around the port. The Scout Service maintains its own section, including repair facilities and security.

The starport/scoutbase authorities have a limited number of unarmed small craft available. These are five shuttles and a pair of 50 ton modular cutters. These are unarmed and are used in a wide range of operations which include orbit to surface shuttling and refuelling. Additionally, two type R400 ton non-jump merchants regularly travel between planet and the nearest gas giant. The Port corporation also has several grav vehicles at the base for use with their cargo and passenger transports.

The starport/scout base complex is defended by minor ground based planetary defences. These consist of a single deep-site H meson gun (with a type 9 computer) and a series of surface sensor sites, some of which are concealed. These sites are guarded by either government troops or sanctioned mercenaries. The troops guarding the Port authority HQ and other starport sites are hired corporate security forces which the Scout service part funds. Both sets of troops are well-armed and prone to shoot long before they even think of asking questions.

Cygnus X-3 maintains one survey scout, three Type S Scouts, two Type S Scout/Couriers, and two small non-jump ships. The small craft are a pinnace, and a modular cutter. The base also has an (off the record) gig from a destroyed Gazelle class escort, which has been extensively customized. The base maintains several grav vehicles (air/rafts and a single speeder) as part of the Scout base fleet. It is rare to find more than one or two of the Scout/Couriers at the port. The rest are typically out on missions.

Cygnus X-3 handles minor border duties in the local area, and keeps an eye on several small, but restive, political entities, which are little better than banana republics. Firepower available to the base for such missions is extremely limited, and mostly resident in the squadron's scouts. Local Navy forces consist of a squadron of four Gazelles which patrol the system, generally in pairs.

The base also supervises the sub port at the local moon of the gas giant. The population of this moon is a moderate sized mining settlement (pop 4) on a hostile world (Atmosphere B), and has a small, mainly underground, transportation system. The sub-base can tend one to two free traders, or one subsidized merchant at any given time, has a shuttle and modular cutter on call; both are piloted by scouts on rotation from Cygnus X-3, or as a moderate punishment. The moon is mainly self sufficient, but trades ore

for food and parts with the main world. About half the population are temporary miners, some independent, some employees of the mining cartel that controls mining and ore extraction operations in the system.

Cygnus X-3 is typical of a frontier scout base in that it has no particular specialisation and can support a wide variety of mission profiles. Scout missions have included frequent mail drops linking the local area with the (distant) Xboat route out of the main system. Diplomatic courier duties to the various pocket states in the system are common. Rescues and assists are also fairly common, partly due to the age of most of the local ships, and the base maintains a standing orbital patrol with a modular cutter in medivac/rescue configuration. Detailed system surveys and updates are also frequent duties for the local systems in the subsector, and while actual exploration opportunities are less common, anomalies requiring investigation seem to crop up regularly. Cygnus X-3 is also a minor training campus for the sub-sector. It is somewhat underfunded due to demands on the more important frontiers, and as the other services are in similar situations, an informal lend and loan system has evolved, where support is traded for missions as well as other supplies between the navy, colonial forces, scouts and the merchant service.

Several types of Scout characters end up stationed at Cygnus X-3. The first are long service scouts, close to retirement. Typically, this kind of posting is seen as a fairly easy, lower risk way to wind up their career. Second, are very new scouts; locations such as the Trojans of the gas giant are excellent for technical training. Third, are those scouts no longer able to function efficiently due to age or injury, yet not so badly impaired as to require retirement from the service. They typically do much of the support and admin work for the base, freeing the flight rated scouts to serve on the ships; they also are a valuable source of training and education for the younger scouts. Many run seminars and training classes as part of scout training. Finally, there are the 'problem children'. Although seldom incompetent, (as incompetent field scouts generally self select for survival failure fairly soon in their careers) these individuals are those who have extreme difficulty playing well with others even by the relaxed standards of the scout service), have had a run of terrible luck, and/or have caused, or have been in the near vicinity, of repeated sub-terminating screw-ups.

Cygnus X-3 Personnel

SQUADRON COMMANDER MANIK HULKA Male, Age 38, 5 Terms

Str 7, Dex 10, End 9, Int 8, Edu 6, Soc 8

Admin 3, Gun Combat 1 (Slug Pistol), Jack of all Trades 2, Mechanic 1, Pilot 1 (Space Craft), Vacc Suit 1

Manik has served almost exclusively in Survey throughout his career, before an arm injury forced him into accepting command of Cygnus X-3 as he considers his future in the service. The possibility of retirement, and the Cygnus posting, has left him an angry,



bitter man which is reflected in his command style at the base. He has little time for the local politics he is forced to deal with and he resents the constant attempts at interference by the local Port authority and various low-ranking (but high ego) officials who would treat the Scout base as an extension of their own, limited, political capabilities. For all his ire, Manik is a good administrator and highly protective of his personnel. He does not suffer fools, gladly or otherwise, and most members of the base's permanent staff know when to avoid his black moods.

ASSISTANT SQUADRON SUPERVISOR PERDU (PERDY) FARILLA Male, Age 34, 4 Terms

Str 12, Dex 6, End 7, Int 6, Edu 3, Soc 5

Electronic 4, Admin 1, Pilot 1

Perdy is not human; he is of the *Llellewlowy*, a race of sentient, plantlike creatures (Frittilariform) from one of the system's inhabitable planets. He quite literally joined the scouts on a dare, supposedly with several others of his species – all of whom, unfortunately, backed out at the last minute. Efficient, effective and no-nonsense, Perdy is also extremely bitter and abrasive, which explains his posting to Cygnus X-3. He is one of the few inhabitants who quite enjoys the climate on the planet, and refers to complaints as "mammalian weakness". SC Hulka and the starport director often use Perdy to deal with any unpleasant or tedious business.

Second Assistant Scout Supervisor Jakita 'Jax' Tomlinson

Female, Age 30, 3 Terms

Str 9, Dex 11, End 9, Int 7, Edu 9, Soc 10

Electronic 1, Admin 1, Flyer (Grav) 1, Mechanical 1, Navigation 1, Pilot 1 (Space Craft)

Jax is in charge of the minor Scout base installation on the gas giant's moon. Typically this would be the Assistant Director's position

(Perdy), but the lack of sunlight would be an extreme hardship. As a result, Jax has a much more senior position than her rank would normally would allow. She is generally relaxed and competent, and while she would not mind a different posting, rather enjoys her independent status away from Cygnus. Her undoubted patience is often called into play to deal with local tensions between the Port authority and the main base, usually as a result of either Manik or Perdy's petulance.

Port Authority

As this is a shared facility, the Port Authority presence is minimal, simply what is required to keep a presence on planet, and a finger in the bland, boring pie that is Cygnus X-3

PORT SUPERVISOR LIAM O'OHLMSTEAD

Male, Bureaucrat, Age 34, 4 Terms

Str 7, Dex 7, End 7, Int 7, Edu 7, Soc 9

Advocate 1, Admin 2, Pilot 1 (Small Craft), Diplomat 1, Flyer 1, Persuasion 1

Liam is a classic grey cog in a grey machine. He is competent at his job, and can drive or fly just about anything the port authority uses. Beyond that, he dabbles in human history, heads the local historical re-enactment society, and hopes for reassignment

ORBIT CONTROL OFFICER T'WAR TRENDECK

Alien (Hermaphroditic), Age Unknown Str 16, Dex 7, End 11, Int 9, Edu 9, Soc 6

Navigation 3, Comms 2, Sensors 3

OCO Trendeck is a four ton hexapod herbivore, native to the core world, and while good at his job, and diligent, is a nightmare for logisitics and workspace management. Of particular advantage is his 71 hour natural sleep wake schedule -(60/11), allowing him to cover lots of shifts which he relishes. Of particular disadvantage is the mutual hostility felt between Pendy and Trendeck, the two being natural enemies: as the two have to co-ordinate, tensions often run high.

CUSTOMS OFFICER MATHIS B'HEAL

Female, Agent, Age 30, 3 Terms

Str 7, Dex 8, End 9, Int 5, Edu 7, Soc 7

Admin 2, Advocate 1, Flyer 1 (Grav), Pilot 1 (Small Craft), Vacc Suit 1, Zero G o

Mathis is one type of law enforcement officer frequently encountered in the hinterlands; annoyingly enthusiastic, clueless and barely competent. She is also fairly lazy, and can be bribed, although one seldom needs to.

PORT MARSHAL REUBEN STANDARD "STAN"

Male, Agent, Age 42, 6 Terms

Str 8, Dex 9, End 7, Int 9, Edu 7, Soc 9

Advocate 3, Flyer 2 (Grav), Gun Combat 3 (Slug Pistols), Gun Combat 1 (Slug Rifles), Recon 2, Investigate 3, Carouse 2, Vacc Suit 0

Marshal Stan is the *other* type of lawman; competent, skilled, hard boiled, and unfortunately for his career, absolutely unable to look the

other way when confronted with corruption or incompetence. Stan sports several awards, and has been shuffled from posting to posting with depressing regularity. His growing boredom is taken out on any malcreants and he has a growing suspicion that Manik Hulka is engaged in some form of corruption centred on the mining operation on the gas giant moon. He wants to uncover it – not for glory, but to get a slice of the action for his dwindling retirement fund.

Medical Group

Cygnus base operates a medical group in the reasonably well equipped medical wing. The group has specialisations in both human and xeno-biology. Whilst part of the Scout base, a longstanding agreement with the Port authority means that medical expertise is leant to the starport medical team, which lacks xenobiology medical expertise.

BASE DOCTOR HAWN VRATCH

Male, Scout, Age 42, 6 Terms

Str 8, Dex 9, End 4, Int 10, Edu 11, Soc7

Electronics-1, Medic 3 (Xeno medicine), Medic 4 (Human Medicine), Pilot 2, Vacc Suit 1

Dr. Haw Vratch uses his medic skill at full value for Humans and other lifeforms found in the system. Vratch unfortunately suffers from a benign mutation which links to the victim's epithelial cells, and causes a clear, viscous jell to be exuded from the subject's skin although it is harmless. Vratch controls the discharge with drugs but these have the side-effect of limiting his sense of smell. His bedside manner is excellent, and he is a well respected doctor, often called upon by the Port authority to treat ailments amongst those using the main starport. Hulka resents this, but is forced to accept the situation.

RODGE UNTER, MEDIC

Male, Scout, Age 26, 2 Terms Str 8, Dex 8, End 8, Int 6, Edu 7, Soc 9 Gunnery-1, Medical-2, Pilot-1

Rodge is a typical early career scout. He has decided to specialize in xenomedicine, and is currently completing a training rotation on Cygnus X-3. He is pleasant, detail oriented and meticulous but extremely stubborn. He gets along well with the Doctor, and in his spare time is an excellent artist – something which fascinates Perdy.

Science group

The Science Group runs all Survey and Exploration missions out of Cygnus, and is responsible for investigating and charting anomalies in the system and nearby. It has conducted extensive surveys of the gas giant and its various moons, with its results leading to the successful mining operations now found on two of the gas giant's satellites.

PEELA TROFFLIA BASE SCIENCE OFFICER Female, Scout, Age 46, 7 Terms Str 4, Dex 9, End 8, Int E, Edu 8, Soc 6 Astrogation 4, Electronics 2, Flyer (Grav) 1, Gun Combat 1 (Slug Pistols), Jack of all Trades 1, Mechanics 1, Pilot 1, Vacc Suit 1, Science (Archaeology) 1, Science (Xenobiology) 1, Dr Trofflia is a long-serving Scout scientist nearing the end of her career with the service. Meticulous, data driven, and obsessed with administrative rules and procedures, she is nonetheless a brilliant if plodding researcher into the nature of jump space, and has developed several small but useful modifications to standard course plotting procedures. Her main disadvantage is her arrogance; she is convinced that she is the best scientist the Scouts have ever produced, not least in the field of Astrogation, and that her relegation to Cygnus X-3 is the result of a jealous feud by others

Peela is accompanied by her 'assistant' whom she calls Smith, but everyone else refers to as The Spud.

SCIENCE ASSISTANT SMITH-4372 AKA THE SPUD

Android, Assistant to Peela Trofflia. Age Unknown.

Str 2, Dex 8, End 6, Int 12, Edu 13, Soc4 Computers 5, Electronics 4, Jack of all Trades 1, Navigation 5

"The Spud" as the base calls him, came with Dr Troffila, and seldom speaks unless spoken to, and is generally seen in the equivalent of a hooded bathrobe. He seems nominally human, although quite short, having bulging crossed eyes, an odd, croaking voice, and an unusually cramped and lumpy physique under his clothes. He seems to have extra fingers on one hand, and be missing them on the other; and always wears gloves. He will only answer to 'Science



Specialist Smith-4372' unless Peela speaks to him, in which case 'Smith' suffices. When he speaks, it is in a cold, distant voice, reminiscent of an echo.

LAB MANAGER PODAR TALLMAN

Male, Scout, Age 30, 3 Terms

Str 9, Dex 7, End 4, Int 7, Edu 9, Soc 12

Jack of all Trades 1, Mechanical 2, Pilot 1, Computer 1

Tollman is a career administrator, and has become quite lazy and passive in his current assignment to Cygnus X-3, and likely permanent assignment as general lab manager. His only permanent specialists are extremely self reliant and very undemanding, and the rotating grads and scientists tend to have minimal needs. He is neither corrupt nor venal – but he has become completely seduced by the soft side of life.

RESEARCH ASSISTANT RANS OVERL Male, Scout, Age 24, 2 Terms Str 7, Dex 4, End 5, Int12, Edu 10, Soc 10 Electronic-1, Computer-1, Jack of all Trades 1, Pilot-1

An ambitious scientific trainee, Rans is a recent transfer to Cygnus base and keen to make his mark in the hope of being transferred to Special Operations or Contact on the completion of his current term. Eager to please and unsure of how to handle authority, he tends to be assigned the routine duties that no one else in the Science Branch can be bothered with.

CO-INVESTIGATOR MAGRIS HEROLOVEN

Female, Scout, Age 46, 7 Terms

Str 4, Dex 9, End 8, Int 14, Edu 8, Soc 6

Science (Plantetology) 3, Computer 2, Flyer 2 Gun Combat 1 (Slug Pistols), Investigation 2,

Pilot 1 (Space Craft), Pilot 1 (Small Craft), Vacc Suit 1, Streetwise 1 Gambling 3

Magris Heroloven is both a planetologist for Cygnus and the chief Briefer/Debriefer for missions in and around the system. Marking time until her retirement, she enjoys life on the base and has healthy relations with the senior staff. Rumoured to be having an affair with the Starport's Head of Administrative affairs, she shrugs off the gossip with a weary grin and wry joke. A popular member of the team, nonetheless.

Engineering Group

The Engineering Group handles all space craft and small craft maintenance and repairs for the base. The group is typically overworked, but Jun Li, the group's chief engineer, copes with this by gleefully cutting through bureaucracy so that her team can concentrate on keeping the base's fleet of ships operational.

JUN LI CHIEF ENGINEER Female, Scout, Age 38, 5 Terms Str 8, Dex 8, End 11, Int 9, Edu 7 Electronics 2, Engineering 3, Mechanic 2, Pilot 2 (Small Craft)

Jun Li is a motivated competent Engineer who utterly hates, and generally ignores, paperwork. Her seniority makes her the chief engineer, but her absolute inability to handle documentation has resulted in the assignment to Cygnus X-3.

STUDAS MATUDAS AKA"STUDS", ASSISTANT ENGINEER Male, Scout, Age 30, 3 Terms Str 7, Dex 7, End 10, Int 8, Edu 8, Soc 7 Engineering 2, Mechanical 3, Pilot 1 (Small Craft) Studs is a breezy can-do style mechanic, who keeps most of the base vehicles running one way or another. He also moonlights as a shade tree mechanic with the locals –officially forbidden, but currently overlooked.

Additional, Generic Engineers:

Male, Scout, Age 30, 3 Terms Str 8, Dex 9, End 10, Int 9, Edu 9, Soc 8 Computer 2,Engineering 2, Gun Combat 1, Pilot 1(Small Craft)

Male, Scout, Age 30, 3 Terms Str 4, Dex 9, End 7, Int 7, Edu 5, Soc 9 Mechanical 3, Pilot 1 (Space Craft)

COMMS GROUP

The Comms group conducts dual roles: the general IT maintenance of the station, plus all Messaging activities Cygnus is expected to undertake.

IT HEAD, K'KAAARK KRALLLLORICAAAAR

Scout, Age 50, Avian, 8 Terms

Str 5, Dex 3, End 7, Int 15, Edu 9, Soc 9

Electronics 5, Flyer (Grav) 1, Comms 2, Computer 3, Pilot 1 (Small Craft)

K'Kaark is a member of an avian descended non-human minor race native to the neighbouring system. A superficial resemblance to earthly penguins has branded this race with the name of Penguinoids, and as their name is almost impossible to pronounce, is not widely used. K'Kaaark is in many ways a stereotypic IT admin. Gruff, retiring and obsessed, he works odd hours, refuses to document anything, and has a vast knowledge of the bases information systems, having essentially rewritten it entirely during his tenure here.

RAIFA FAYLES, ASSISTANT IT SPECIALIST

Female, Scout, Age 30, 3 Terms

Str 1, Dex 3, End 8, Int 9, Edu 11, Soc 6

Electronics 2, Comms 1, Navigation 1, Pilot 1

Heroically injured in the recent frontier war , her motor nervous system was badly damaged leaving her reliant on prosthesis and powered transport. Refusing retirement, she works as what is essentially a virtual network troubleshooter, being nearly always jacked into the base net via a sophisticated array of interfaces and wafer jacks. She also works as the base librarian/archivist, and assists with the planetary net wherever possible.

VILLA RATHUS

Male, Scout, Age 26, 2 Terms Str 8, Dex 9, End 6, Int 6, Edu 10, Soc 6 Electronics 1, Gunnery 1, Pilot 1 (Spacecraft), Vacc Suit 1, Computer

A surprisingly normal, if quiet technician, he is dedicated to learning his job, and keeping things running.

SQUADRON GROUP

The Squadron Group is the team of active Scouts responsible for conducting the missions Cygnus X-3 routinely tackles or is assigned to deal with. The group is divided into crews for the main operational vessels.

Cygnus X-3 Survey Ship (based on a 200 ton Free Trader): Aachari Crew Nickname: The Grognards

A crew of veterans who have surveyed in many branches of the Scout service during their careers, and have travelled far and wide. The posting to Cygnus base represents either a damning report on their previous careers or a graceful move towards retirement, depending completely on one's point of view. The Grognards are a cynical, if efficient, bunch, who have seen it all and survived the rest.

MAK THANNIS: CAPTAIN/NAVIGATOR

Male, Scout, Age 46, 7 Terms Str 9, Dex 7, End 4, Int 9, Edu 9, Soc 9 Astrogation 2, Comms 2, Electronics 1, Pilot 3 (Spacecraft), Vacc Suit 2, Zero G 2 The acerbic captain of the Aachari; a ruddy-faced spacer with a cynical bent and tired, nervous laugh.

LASLO LARS: PILOT/HELM

Male, Scout, Age 46, 7 Terms Str 8, Dex 4, End 5, Int 5, Edu 6, Soc 6 Flyer 2 (Grav), Gun Combat-1, Jack of all Trades 1, Mechanics 2, Medical 1, Pilot 3,Vacc Suit 2, Zero G 1, Survival 1

PYERS BANNERMAN: MECHANIC/GUNNER Male, Scout, Age 46, 7 Terms Str 7, Dex, 5, End 4, Int 10, Edu 9, Soc 11 Electronics 2, Gun Combat 1 (Slug Pistol), Gunnery 1, Mechanical 3, Pilot 1 (Spacecraft), Pilot 1 (Small Craft), Vacc Suit-1, Zero G 1

In addition to the above, 3-5 other scouts or technical specialists will be on board, depending on the mission.

Frontiersman class Type S scout #1: Black Knight Nickname: "The Gentlemen's Club"

This is an unusual crew, composed of an assortment of nobles serving in the Scouts. Adequately competent, they are nonetheless able to tap personal wealth and connections to have excellent, better than state of the art equipment, quarters and uniforms. They are vaguely aware that they have been shunted off to the middle of nowhere by the generally egalitarian scout service, but honestly do not care. They work minimally, but play hard, frequently causing rows in the off base economy, and producing outraged spouses and fathers. Currently, they are tolerated as they maintain their ship out of their own pockets (freeing up scarce parts and funds for the rest of the squadron) actually do some scout work, and have not killed anyone (yet).

LORD SHO'TEDARK Male, Scout, Age 30, 3 Terms Str 4, Dex 8, End 9, Int 10, Edu 11, Soc 12 Electronics 1, Jack of all Trades 2, Pilot -3

A jovial, snobbish gentleman from the TeDark Landsracht on the main world; heir to the TeDark billions but determined to defer his obligations and duties for as long as possible whilst in pursuit of adventure. An incorrigible womaniser.

SIMEON SAN SIMEON

Male, Scout, Age 38, 5 Terms

Str 4, Dex 4, End 7, Int 8, Edu 11, Soc 11

Comms 1, Computer-1, Engineering-2, Gun Combat-1, Medical-2, Navigation-1, Pilot-2, Zero G 2

The wastrel son of the san Simeon mining conglomerate, Simeon is, in fact, a competent all-rounder and well suited to the Scout lifestyle. Members of the san Simeon Corporation are rumoured to have placed a generous reward for anyone who can convince him to return to his place on the family's corporate board.

LADY ANNA-WEYR FALKONI

Female, Scout, Age 46, 7 Terms

Str 4, Dex 5, End 7, Int 12, Edu 12, Soc 11

Diplomat 3, Electronic-1, Engineering-1, Jack-o-T-3, Mechanic 1, Medical 2, Pilot 2 (Space Craft), Vacc Suit 2

The dispossessed heiress of the Falkoni fortune, Lady Anna has turned her back on her lineage but maintains her title when it suits her. Adept at moving within high social circles, she is a consummate diplomat and a charming ambassador for Cygnus base.

SIR RAYMOND FOLDER

Male, Scout, Age 30, 3 Terms

Str 7, Dex 12, End 7, Int 7, Edu 12, Soc 11

Engineering-2, Gun Combat-1, Jack of all Trades 1, Pilot-1,Vacc Suit-1, Vehicle-1

The hot-headed son of an ancient family, he was enlisted in the Scouts to get him away from an exceedingly serious scandal within his own society – something so bad he refuses to talk about it.



This chapter details the tools of the Scout service's trade: the equipment used across its various branches and, naturally, the ships deployed as part of its messenger and exploratory activities.

Equipment is grouped under each branch of the Scout service, but this does not mean it is exclusive to that branch – simply that the branch uses the equipment more than others. Ships, on the other hand, are ubiquitous, with each branch using a variety of ships depending on the task in hand.

GENERAL EQUIPMENT

All equipment is rated by its Tech Level, its cost, weight, and any special rules concerning its operation and use. Dependent on Tech Level, any Scout team expected to undertake a particular assignment will be able to requisition the appropriate equipment for the stores of a Scout Base; the only exception will be for Class D and E bases where resources are stretched. In this case, a Class D base has the required equipment available on a roll of 8+ and Class E on a roll of 10+.

Synthetic Skin (TL12+)

Resembling skin, Synthetic Skin bandages have been developed by the Scout service for aiding Contact expeditions. The material is a complex nanotechnology analogue that includes dermal receptors to analyse and replicate the skin type over which the bandage is placed. This allows the material to be compatible with near-human dermal make-up (carbon-based life-forms).

Synthetic Skin protects wounds, cuts and abrasions, healing up to 3 points of damage over the course of 3+1D6 days. The material protects from infection and allows the natural skin underneath to breathe. It is water-tight, the nanoreceptors in the material forming a perfect bond (a not unpleasant tingling sensation) with the natural dermis. When applied, it takes about half an hour for the material to form its bond and then healing commences.

Synthetic Skin comes in packs of patches of varying sizes and bandage wraps of 1m in length. A standard kit includes 12 patches and 3 bandages. The material can be cut to length.

Cr500

Tannin Capsules (TL12)

These orally-taken capsules darken or lighten the skin's pigmentation, either for cosmetic purposes or to guard against the effects of UV radiation. Packs of tannine capsules contain 12 doses: 6 each of lightening and darkening capsules. The process takes 1d3+1 hours to complete.

Cr400

Smart Kitchen (TL14)

A portable food processor, the Smart Kitchen is capable of producing a passable likeness of any food sample placed into its sensor unit. The output is a standard portion, served hot or cold, of the sample, but calibrated to suit the imbiber (therefore potentially unpalatable foods can be created to suit a human or other alien metabolism). The unit contains a standard pack of organic compounds (proteins, carbohydrates, vitamins, and so forth) from which it draws its raw materials. The pack contains enough material to replicate 12 standard portions of foodstuff before it needs to be refilled.

The unit, whilst portable, is bulky, and resembles a large attaché case faced with calibration reads-outs, the sensor input and the portion dispenser.

Larger versions holding quadruple the raw material packs are often fitted to Scout survey and Contact vessels as part of the ship's kitchen.

Cr15,000 (Raw material packs Cr1,000)

Shelter Cubes (TL13)

These are portable buildings that consist of light, collapsible frame poles, insulated flooring rolls and cans of foaming wall. Once the frame poles are erected over the flooring sheet, cans of spray-on structural foam are used to create exterior and interior walls, with a single can sufficient to create a cube-like structure 3m x 3m x 3m. It typically takes 10 minutes to erect the frame and floor; 10 minutes to apply the foam and 10 minutes for it to harden. Within half an hour one can construct an insulated, water and wind-resistant shelter. The foam is steel-hard and offers 5 Armour Points of protection; it is also fire-retardant. Whilst the foam is drying it can shaped as necessary using standard tools (knives and so forth), as needed.

Solvents included in the Shelter Cube kit allow the foam walls to be dissolved once the shelter has served its purpose, with the residue forming a non-toxic pool that evaporates in standard sunlight within 24 hours.

Standard Shelter Cube: Cr800

Deluxe Shelter Cube: Cr1,500 (creates a structure 10m x 10m x 10m)

Standard Scout Pac System (Available at TL14+)

Basic scout equipment is built around reliability, ruggedness, easy configurability and replacement. In many cases Scout-grade equipment will out-perform standard civilian or even military manportable scanning equipment simply due to the usage and mission

profile it is designed to meet. To that end, the basic scout Pac system has been developed, consisting of small sensor/computing modules (handPacs) about the size of a thin modern cell phone (sometimes thicker) with dedicated functions based on the differing and altering needs of a scouting mission. Several handpacs can be easily carried, and include slots for various accessories as described below.

The modules themselves can be slotted into a ManPac unit, about the size of a small laptop or thick clipboard. When installed, the ManPacs function with greater range, and generally increased computing power, and the user has more options for adding accessories, and easier hardware, for control and interface tasks. Finally, whereas the Hand Pacs are, at best, capable of robotic autonomy, the ManPac is designed to act as science assistant, and runs intellect software allowing it to intelligently use its components as defined by basic input from the user.

HandPacs are divided into several basic types sharing functional abilities. SnifferPacs, AssayPacs, ScanPacs and ResourcePacs.

Sniffer Packs give a very fast response to a number of predetermined questions. *Biosniffers* require a minimal, casual sampling to work, or are capable of passive sampling (Radiation, for example). A Biosniffer gives a probability of life within a certain range and its DNA compatibility. *Envirosniffer* gives atmospheric toxins, radiation (various types), known viral or bacterial hazards and temperature. *Chemsniffer* gives a quick assay of the atmosphere or liquid based around specific hazards.

Assay Pacs are lab equipment, and produce much more detailed results taking longer amounts of time to correlate. They are passive, and require a sample - either physical ,such as organic matter, liquid or gas; or simply the presence of the assay material , such as EMS output, radiation, heat, and so on. In all cases with physical samples, the size required is fairly small, about 1-3 grams, and is quite accurate within that limit –it must be noted, though, that a small sample may often lack some less than perfectly homogenised or rare component, so multiple sampling techniques are always recommended. .

Scan Pacs Are closest to conventional sensor equipment. Active scanners emit probe signals as appropriate and analyse the response/return signal. In some cases, such as visual enhancers, the sensors are entirely passive. Note that if needed, most active scanners can be operated in a purely passive mode, although with a considerable decrement in performance – generally either a -3 to Sensor operation skills, or halving the effect of a success, depending on the type of sensor and the situation.

Resource Pacs are either highly specialised data processors (crypto, database, mapping) high capacity recording units, or boosters to increase functionality in other hand or Man pacs.

All handPacs are designed to allow a user to access important and varied skill sets via the computer skill. Thus, all pacs (hand or otherwise) are fundamentally computers, and are operated by use of Computer skill, except for pacs that emulate sensor skill, which may also be operated by the Sensor skill.

SNIFFERPACS

Sniffer Type	Size	Skill	Effect
Envirosniffer	1	Survival	+2 to skill or
Biosniffer	1	Recon	skill level o
Chemsniffer	1	Science (Chemistry)	if skill is not
EMS Sniffer	1	Sensors	possessed
Auditory Sniffer	1	Intelligence	
Intruder Detection	1	Tactics	
Bloodhound	2	Investigate	

All sniffers include power 1 computers that run Intelligent Interface and are specialized to run the appropriate expert skill at level 2, include at least two wafer chips, a small display and a limited dumb control set in addition to a standard Data Display link.

AssayPacs

Assay Type	Size	Skill	Effect
Bio-assay	2	Science (Xenobiology)	+2 to skill or
Chem-assay	2	Science (Chemistry)	skill level o
Ore-assay	2	Science (Chemistry)	if skill is not
EMS-assay	2	Comms	possessed
Medical-assay	2	Medic	

Assay packs have similar configuration as a sniffer, with extra wafer slots, and the option to project a virtual screen and interface controls. They are approximately double the size, and include extensive TL14 advanced quantitative and qualitative analysis machinery. They typically do not function as a sniffer, insofar as they are not optimised for rapid response and limited analysis tracks.

SCANPACS

Assay Type	Size	Skill	Effect
Bioscanner	2	Sensor	+2 to skill or skill
NAS scanner	2	Sensor	level o if skill is not
EMS scanner	2	Sensor	possessed
Vision scanner	2	Sensor	
Sentry	2	Sensor/Comms	
Medscanner	2	Medic	

MANPACS (TL14)

Man Pacs are book-sized computer terminals. A typical ManPac has configurable slots for an additional four handpacs. All handpacs operate at Expert Level +1 and Agent Level +1 as appropriate when connected to the core. Additionally, the manpac core runs Intellect/1 and can intelligently run any of the attached handpacs in the background at Expert(skill) or Agent level 1, report results, and suggest further actions as necessary. Weight: 5kg Cr5,000

Specialised to run Intellect/2, Intelligent Interface/2; can load any combination of Expert(skills) skills from component handpacs at normal space cost, and use up to two of them simultaneously. Installed handpacs may contain wafers as normal, but cannot be changed while installed in the manpac. The manpac itself includes basic hardware controls and visual and auditory display as well as all virtual and/or distributed options possible for sniffer and scanpacks.

Contact

The Contact branch draws on the full array of Sensor equipment found on page 96 of the main Traveller rules, but also has the following items available:

TRANSLATION UNIT (TL 14)

A translation unit is designed to take spoken language and rapidly translate it into the desired language, broadcasting the output audibly and in a tone and accent that is as acceptable as possible to the recipient. The linguistics and phonetics algorithms used in the translation unit are highly sophisticated, but even at high Tech Levels, no unit can handle more than one language at a time.

Language dictionaries are stored on high capacity memory wafers which are loaded into the unit. The processor is worn on the hip, and includes a 'natural speech synthesiser' which broadcasts the spoken output. The user wears a discreet headset or ear-buds and receives translated inputs direct to the ear.

There is a delay of about half a second as the translation (in both directions) is processed and broadcast and delivered. Additionally, there is always the chance of a mistranslation occurring on a throw of 9+ (the Referee should decide when such a chance is prevalent). The user of the device may off-set the mistranslation chance with his own Language skills, gaining a +1DM for each level in the language skill that is being used for the translation. If a user has a Language skill of 3 or higher, then the chance of a mistranslation is completely negated.

Cr8,000

LINGUISTICS ANALYSER (TL12)

This is a plug-in module for the Translation Unit and is used when a completely new language is encountered. The analyser records spoken words and then runs complex linguistic and phoneme alogorithms to determine language structure, nuance and meaning.

It requires 8 hours of more or less continuous speech for the analyser to assemble a very basic, almost child-like understanding of a language. After a further 8 hours of recording and analysis, it has a language accuracy equivalent to skill rank 0. For every 24 hours thereafter, its accuracy increases by a further 1 level, up a maximum of 3.

The Analyser can be plugged into a translation unit at any time. At level o, the chance for the Translation Unit to mistranslate is 9+, as described in the description of the Translation Unit. Every level of accuracy reduces the throw, up to a mistranslation chance of 6+ (which may be offset still further, or negated, by a competent user of the language).

Cr 8,000

LIFE SCANNER (TL 12)

The Life Scanner is a ship-mounted sensor array that is specifically calibrated for detecting signs of mobile life and differentiating between life forms. The Life Scanner can differentiate, for instance, between a colony of insects, a herd of migrating animals, and social groups of sentient creatures. Typically used in high orbit above a newly discovered planet, it can, within 24 hours (for an average, earth-sized world) identify and quantify population densities, likely life types (sapient, sentient, non-sapient and so forth), certain ecological niches. When using the scanner, a Sensors roll is required to successfully interpret the results. The Life Scanner is not 100% accurate; it typically has an accuracy of between 70% and 85%, but this is sufficient for first-pass exploration needs.

Cr 20,000, Ship-Mounted as part of the standard sensor cluster.

LIFE SCANNER/ANALYSIS (TL 14)

A development of the Life Scanner, the Analysis model also takes atmospheric and environmental factors into account to develop an accurate portrait of the biology of life detected using a Life Scanner. The system can, for example, indicate the physical configuration of detected life, approximate its food requirements, and produce additional critical signals that will inform the user on how to prepare for any direct encounter with the life form.

Cr 40,000, Ship-Mounted as part of the standard sensor cluster

HOLDING FIELD (TL 15)

A holding field is an advanced system that has a variety of uses. High energy gravimetric beams or spreads of beams (a field) are strung between a generator unit and a receptor unit to create an impenetrable barrier that may or may not be visible to the naked eye, depending on the energy used and the desire of whoever sets up the field. Generally, a holding field is designed to contain without causing damage although, again depending on the kind of energy used, damage may be caused if the field is touched.

As the beam is continuous and is designed to be held for prolonged periods of time, the energy source needs to be reliable and highly efficient. Therefore the generator and receptor units may be bulky

and cumbersome but, once established and functioning, offer a way of providing fast, easy containment without the need to erect physical fencing.

At TL15, the generator and receptor units are contained in a single pillar-like device with settings on the exterior to dictate the unit's polarity (either generating or receiving), so that discrete devices are not necessary. Two units used together create a single-line barrier; three a triangle, four a rectangle and so forth. Onboard computers automatically calibrate to the other units used in the matrix and provide continued energy correction for optimum use. The height of the barrier is determined by the height of the generator/receptor unit. A simple pair of units is 2m in height; add a further Cr5000 for each additional metre of height required.

The Holding Field's range (the maximum distance that can be attained between the two units) is cost-dependent. A basic pair of 2m high units can span up to 5m. Add a further Cr5000 for each additional 5m span required.

As the idea of the Holding Field is to contain, physical damage is rare. The energy field offers a solid resistance (and is warm to the touch) just as a physical barrier offers resistance. However, if enough energy is exerted, then a Holding Field can be overcome. A basic Holding Unit generates a Field Strength of 6D+6. To overcome it, the opposing force must achieve a higher Effect than that created by the Holding Field. This could be kinetic energy from something swinging at or charging the field, or a weapon system overloading the field itself. Of course, if the units are targeted and damaged, then this will either impair or negate the field. For this reason the generator/receptor units are usually equipped with 8 points of armour (further points of armour cost Cr200 per unit).

Cr10,000 per unit (2m height, 5m span). Add Cr5000 for each 1m in height and/or 5m span. Add Cr200 per additional armour point.

In the Third Imperium Traveller setting this item is not available until TL 18 at the earliestk, since the societies within this setting do not have sufficient understanding of gravitational forces.

First Contact Communicator (TL14)

The first contact between races is a critical moment. The First Contact Communicator used by the Scout service is designed to optimise the nature of the first encounter. The communicator is a mixture of translation device and message transmitter. It is a book-sized box worn slung on a belt or backpack and, when activated, broadcasts messages of welcome, peace and prosperity, along with critical data about its user (homeworld, astronomical co-ordinates, biological basics, and so on) in an array of known languages, plus standard binary code, on a low-level, non-aggressive frequency. Any new race that is capable of receiving radio and microwaves can intercept the information and, if they have sufficiently advanced decoding technology, gain, at the very least, a basic understanding of the transmitter's intentions. The messages are broadcast in a friendly, calm, reassuring tone that has been developed by Scout linguistics and First Contact specialists to be completely non-threatening and encouraging to peaceful dialogue. The communicator also includes a translation unit (see above) to begin the language translation process immediately. Integral digital cameras record the first contact moments, and a palm-sized display (which can be enhanced by a Tri-Dee projector) can show images relating directly to the messages being broadcast, or images chosen by the user.

Weight: 0.5kg Cr20,000

Advanced Personal Drone (TL 14)

The Advanced Personal Drone is used to assist in a wide variety of contact and surveillance tasks. Equipped with grav generators for operation in gravity environments, its primary purpose is to perform all routine sensor and scanning functions, assist with First Contact protocols, and to inform all other contact and survey work.

Roughly 100cm in diameter, the APD is equipped with a full First Contact Communicator array, surface to ship comms equipment, short range environmental sensors, medi-kit and a small number of hardware tools for performing basic mechanics tasks (at Level 1).

For an additional Cr8,000, the drone can be equipped with a Genuine Personality Profile unit. This allows the drone to communicate with a distinct personality representation, either modelled on a known person or fitted from an extensive library. Library personalities include:

Sarcastic but Caring Warm, Generous and Loving Acerbic and Glib To The Point Loquacious but Right Friendly and Supportive Do Not Mess With Me Paranoid and Pessimistic I'm Your Best Friend I'm Your Best Friend Diplomacy and Tact Epitomised

Countless others are available. None inhibits the actual function of the APD, but the personality profile chosen may suit some tasks and sensibilities more than others.

Strength 2 (-2), Dexterity 9 (+1), Hull 1, Structure 1. Traits: Tiny, Integral System (comm., audio-visual, translation, First Contact), Integral System (grav floater)

Cr50,000

COURIER

The Courier branch makes extensive use of high-end communications equipment, including all communication items found on pages 90 and 91 of the Traveller rules. Additional items include:

Scout Cryptography Unit (TL 7+)

Cryptography algorithms are crucial to messaging. The full cryptography units of the Scout service dedicate masses of processing power to codes and ciphers, but this portable, hand-held unit, is designed for field use and quickly encrypting a message that needs to be hastily prepared.

No roll is necessary to successfully encrypt a message. A message prepared and sent with the Cryptography unit can only be successfully decoded by someone using the unique decryption code that the unit generates and sends in separate message packets. Intercepting an encrypted message, using one of these units, allows the message to be encrypted on a roll of 12+, with DMs allowed for decryption skills, and +1/-1 for every two TLs in difference between the encrypting device and the decrypting device.

For example, a message prepared on a TL8 unit can be decrypted on a TL12 unit. The roll is 12+, with a +2DM for the TL12 unit's greater processing power and faster, more accurate algorithms. Conversely, a TL8 unit trying to decrypt a message prepared on a TL12 unit suffers a -2DM to the decryption throw.

Cr8,000 (+Cr2000 for each TL above 7).

Military Grade Cryptography Unit (TL 9+)

This is an installed cryptography unit used by the dedicated messaging teams of the Courier branch. It works on similar principles to the portable unit; however the roll to decrypt a message prepared on it is 15+, and the military grade unit gains a +1DM for deciphering for every 1 TL level in difference to the machine that prepared it.

Cr25,000 (must be installed in a comms/computer room as a dedicated server array).

Secure Storage Wafer (TL 10+)

A data wafer that carries a military-grade encryption algorithm, the SSU comes in storage sizes of 10Gb to 10Tb – literally capable of storing thousands or millions of messages, along with the necessary, space-hungry encryption and decryption metadata to hold the content securely.

The SSI also has nano-sensor built into its fabric that cause the wafer to self-destruct if any access attempts are made that are unaccompanied by a recognised Scout service identifier code, as transmitted through either a portable or installed cryptography unit.

Cr50 (10Gb) - Cr500 (10Tb)

Secure Storage Unit (TL12+)

Using nano-gears and seals, and memory plastics, secure storage units are boxes ranging in size from a book up to a full packing crate. Each box requires a unique electrochemical signature to open, the configuration of which is usually transmitted separately to a destination. Without the signature, the box remains fully sealed and can only be opened if subjected to the equivalent of 66 points of damage – which will also destroy the contents.

The material of the box is, naturally, stab and bullet resistant. It is also resistant to infrared, X-Ray, meson bombardment and thermal imaging. The perfect attaché case.

Cr1000 (book-size case) Cr 5000 (small suitcase) Cr9000 (large suitcase) Cr18000 (packing crate)

EXPLORATION AND SURVEY

The Exploration branch draws on the full array of Sensor equipment found on page 96 of the main Traveller rules, but also has the following items available:

Advanced Combination Telescope Array (TL 11)

Different types of telescope collect information in different ways: radio telescopes, for example, operate in the radio frequency portion of the electromagnetic spectrum where they can detect and collect data on radio sources. Optical telescopes collect light, presenting it as an image. The larger the telescope, then more data it can collect, and the farther away it can view.

The Advanced Telescope Array in use by the Scout service is effectively a processing unit that can be networked with any number of telescopes of any different type. The information collected from each telescope is processed, amalgamated, calibrated, and then presented to the user as either a single, discrete dataset, or as a combined image and data readout that collects and correlates all information into a single place for analysis. When connected to a Tri-Dee projector, then the results of astronomical study can be startling.

The ACT does not replace the need for telescopes or sensors, but it does reduce the effort placed into studying the information returned from several telescopes. Further more, two or more ACT arrays can be networked together via wireless or wire information technology to pool material from many telescopes into a single study matrix. This is highly useful for extensive field observations of a large system or a particular stellar anomaly that requires multiple viewpoints and different fields of analysis.

The ACT array is moveable but not man-portable due to its bulk.

Cr15,000 Weight: 5kg **Spatial Inferred Neutrino (SIN) Sensor (TL 14)** The Spatial Inferred Neutrino Sensor is used to detect and image normal and collapsed matter in stellar space. It relies on an extremely sensitive array capable of detecting background neutrino radiation and the effect on this from astral objects.

Dense and hyper-dense matter, collapsed matter or objects absorbing a significant portion of neutrinos, display as areas in a Tri-Dee screen as radiating from light grey to the purest black, indicating the density of the object under scan.

To use this sensor the ship or operator must be away from other neutrino sources and must not have a fusion or fission powerplant currently operating and must be stationary in space. Mapping the background radiation before inferring the effects of objects is a slow and painstaking process.

The SIN sensor comes into its own when studying stars, gas giants, nebula, large planetoids and other bodies of significant mass. In a wide angle mode, the chemical composition, decay states, and other activity can be defined within a few seconds. In a narrow angle mode, particular areas can be subjected to highly detailed study that is impossible to achieve with standard sensors or telescopes.

Cr50,000 Weight: 2000kg

Stellar Anomaly Analysis Array (SA3) (TL 12)

Using high-end, but conventional, sensor techniques, the Stellar Anomaly Analysis array can be combined with telescopes and ACT arrays to focus specifically on particular stellar anomalies, excluding all standard, background emissions and noise. Using a vast library of pre-studied stellar anomaly data, the SA3 array is capable of both analysing, retro-analysing, and forecasting anomaly behaviour with 99% accuracy.

The SA3 array works with both ACT and Tri-Dee packages.

Cr20,000 Weight: 10kg

Advanced Probe Drone (TL 12)

The logical development of the Probe Drone (see Traveller, page 95), the Advanced Probe Drone has double the range and speed of its standard cousin, although it is roughly similar in size. A required part of a surveying or exploration arsenal, a typical survey/exploration will carry and deploy up to four of these units. Four such units take up 1 ton and cost MCr o.8 per ton when installed in a ship.

Strength 3 (-1), Dexterity 7 (0), Hull 3, Structure 3

Traits: Armour 3, Integral System (comm., audio-visual), Integral System (grav belt), Integral System (holographic projector), Integral System (every sensor available at TL12 and below)

Cr30,000

Point Marker Beacon (TL9)

Used during system survey operations at each phase of a survey, a Point Marker Beacon is a 0.5m diameter globe equipped with appropriate logging and sensor arrays to note the status of a mission and the next critical stage. A survey mission typically carries 20 or so beacons in a bridge-controlled dispenser fitted to the outer hull of the vessel.

Cr3,000

Special Operations

Special Operations utilises any and all equipment that can be employed in its covert surveillance and espionage operations. Special equipment includes:

Advanced Chameleon Suit (TL 13)

Using nano-cameras and micro-sensors, the chameleon suit is a full-body fitting suit that samples and reproduces the immediate environment to permit near-perfect camouflage. The suit operates on micro batteries that give approximately 6 hours of operational use per charge; when not running, the suit is a dull grey in colour.

When activated, the suit gives a -6DM against all attempts to spot the wearer when motionless, or -4 if moving against visual, UV or IR sensors. However, against other EM sensors the technology is less effective, with the suit giving a -4DM against all attempts to spot the wearer when motionless, or -2 if moving. It provides no advantage against acoustic sensors.

Cr75,000

Defraction Screen (TL 11)

An aerosol based distraction mechanism, a squirt of defraction screen propels millions of highly reflective droplets into a cloud roughly one cubic metre in diameter. This interrupts both direct and peripheral vision, providing a -3DM to any visual reliant rolls attempting to penetrate the area within, or behind, the defraction cloud. The cloud dissipates after 5 minutes and a single aerosol has 12 uses.

Cr150

Makeover Unit (TL 12)

A head-fitting unit that is equipped with inbuilt cosmetics and latex patches, plus a powerful imaging and replication program. When a facial image is loaded into the unit, via a standard data wafer, the unit can replicate the cosmetic features of the image onto the face of the recipient using make-up and heat-formed latex prostheses. Once complete, the makeover is as close to the original image as possible, allowing for obvious differences in bone structure, hair colour, and so forth.

A standard makeover takes 1 hour to apply; 2 to 4 hours if the face being replicated is particularly complex (deeply lined, unusual features, and so on). The unit cannot handle distinctly alien makeovers: it could not, for instance, give a human the semblance of an Aslan or vice versa.

Cr9,500 Weight 1kg

VEHICLES

All Terrain Mule

The All Terrain Mule is a workhorse of any Scout survey operation. A four-man vehicle, available in either six-wheeled or tracked configurations, the mule comprises of a forward command module, which houses the powerplant and crew cockpit, and a rearward supply module which can come in one of several formats, as described below. The two connect by an articulated drive train and coupling mechanism which can be quick-released from the command module.

The mule is designed for rough ground and unstable terrain. The command module is supplied with a 6x6 gearbox and independent steering for each wheel. Its large engine is fitted with a turbo and overdrive, perfect for dealing with difficult conditions on solid planetary surfaces. The command module has a front-mounted heavy-duty winch and grapple to assist in steep climbs and reeling-in large objects. The winch can sustain up to 50 tons of direct bulk at its maximum torque settings.

The command module is also pressurised and climate controlled. A loft unit above the cockpit can sleep two crew members, whilst the seating in the cockpit can be formatted to provide an additional two bunks.

The attachable survey modules come in the following configurations:

EQUIPMENT MODULE

A large, wheeled or tracked trailer capable of containing essential supplies and field equipment. The module has a small generator (type dependent on TL) and includes a grapple and winch.

MOBILE LAB

A laboratory unit that can be configured for a range of scientific endeavours: geological survey, biological survey, life-sciences, medlab/mobile clinic, surveillance/communications, and atmospheric sampling.

SURVIVAL MODULE

Pressurised and climate controlled, this is, in effect, a mobile housing unit with a limited laboratory capability.

Command Module Specifications Weight: 15 tons Height: 3m Width: 2.5m Length: 6.2m

All modules have similar size specifications:

Weight: 8 tons (basic) Height: 3m Width: 2.5m Length: 6m

The Equipment module can carry up to 30 tons of equipment.

For the Mobile Lab and Survival Module, add 8 tons to the basic weight.

Unicopter

Used for short-range aerial surveillance, the unicopter is a single, rotary wing helicopter that contains an auto-stabilisation gyroscope to maintain level, stable, horizontal and vertical flight without the need for an additional, boom-and-tail fitted, vertical airscrew. Small jet thrusters mounted flush to the fuselage provide additional forward momentum, and can be angled through 180 degrees for additional manoeuvrability.

The unicopter is a compact, lightweight, ovoid design that can carry up to three people when pressed, but is designed for either one or two crew members. The nose of the craft can be fitted with small sensor arrays and camera equipment, making it a highly useful, short-range aerial reconnaissance vehicle that is primarily used as a pathfinder for more detailed research vehicles such as the Mule (described above).

At a cost increase of 40%, the unicopter can be fitted with a whisper unit, vastly reducing the craft's engine and rotor noise, enabling it to be used in general stealth operations.

Weight:700kg Height: 2.5m Width: 2m Length: 4m Rotor Diameter: 6m Max Takeoff Weight 1,500kg

Ground Effect Bike

A single rider, grav-generator fitted personal transport, ground effect bikes come in a variety of styles and general configurations (open or closed), and mimic the standard Air Raft in basic concept. Highly manoeuvrable and with a good basic range, ground effect bikes are excellent for a lone Scout to cover a wide area. The bike has basic controls and cannot be fitted with sensor or surveying arrays, but offers fast, personal transportation for forward reconnaissance or scouting where local conditions prevent the use of equipment such as a unicopter.

Weight: 300kg Height: 1200mm Width: 1100mm Length 2200 mm

Rapid Survey Buggy

A light, 2 or 4-man tactical ground vehicle, the rapid survey buggy is designed for rough terrain surveying where larger vehicles (such as the All Terrain Mule) are unsuitable, and there is no need for a sealed cockpit. The buggy is a 4x4 configuration, with a high-end manual and automatic gearing differential, integral, high-impact roll cage, and sealed, environment-proof powerplant. Its large, rugged wheels use run-flat tyres, and the vehicle can either carry 2 crew and up to 800kg in payload, or 4 crew and 100kg in payload. It includes an integral winch and grapple with a 1400kg capacity.

Weight: 500kg Height: 1800mm Width: 2400mm Length 5000 mm

Sled

For cold, snow-bound environments, the Sled is the ideal vehicle. Built to a similar size and configuration as the All Terrain Mule, the Sled is equipped with side, forward and aft skids, and is given motive power by rear-mounted tracks, chain-linked to the drive unit housed at the rear of the vehicle. The skids can be raised or lowered to account for differing snow conditions.

The Sled is not designed to draw additional payloads, as is the Mule, but it is capable of mounting two ground effect bikes on side-rigs attached to the upper portion of the skis.

Weight: 15 tons Height: 3m Width: 2.5m Length: 6.2m

Mariner

The Mariner is the Scout service's dual-purpose liquid environment craft. A streamlined, surface and sub-surface hull, with a transparent front section makes the mariner both a surface boat and a submersible research vessel that can, in a standard water environment, dive to an optimum depth of 600m or an equivalent of 60 atmospheres (in liquid environments where the liquid density is higher than that of water). The hull is made from crystaliron, hence its excellent resilience, with spacecraft hull technology being deployed to make this a versatile and strong surface and sub-surface vehicle.

Typically equipped with starship sensor arrays, calibrated to liquid environments, the Mariner can support a 4-man crew for up to 1 week of liquid environment operations. Its quarters are as cramped as those aboard any traditional Scout vessel, with the Mariner dedicating space to sensors, a small lab, strengthened bridge, and basic sleeping quarters.

The Mariner is generally deployed from an atmosphere-going Scout ship, being lowered onto the water/liquid using a specially designed winching rig from an underside-configured cargo hatch. The crew accompanies the vessel as it is lowered to its environment, and then taking full control once the winch has been disengaged.

Weight: 25 tons Height: 4m Width: 6m Length 10m

Vehicle	TL	Skill		Agili	ty Speed		Crew/Passengers
All Terrain Mule Command Module	6	Drive (wheele			60kph		ı driver, 3 crew/passenge
Mule Module	6	Drive (wheele	d or tracked)	+0	-		Variable
Unicopter	8	Flyer (Rotary)		+0	215kph		ı pilot, ı passenger
Ground Effect Bike	8	Grav		+1	180kpł	1	ı driver,
Rapid Survey Buggy	7	Drive (wheele	d)	+0	120kpł	1	1 driver, 1/3passengers
Sled	6	Drive (skis)		-2	50kph		1 driver, 3 crew/passenge
Mariner	8	Drive (surface	/submersibl	e) +0	80kph	(surfaces), 60	kph (sub) 1 pilot, 3 crew
Vehicle	Оре	n/Closed	Armour	Hull	Structure	Weapons	Cost
All Terrain Mule Command Module	Close	ed	6	5	5	None	500,000
Mule Module	Close	ed	6	5	5	None	Equipment Module 100,000 Lab Module: 800,000 Survival Module: 500,000
Unicopter	Close	ed	4	2	2	None	MCr 1.5
Ground Effect Bike	Ope	n	0	1	1	None	18,000
Rapid Survey Buggy	Ope	n	2	2	2	None	40,000
Sled	Close	ed	6	5	5	None	600,000
Mariner	Close	ed	25	8	8	None	MCr 10

VEHICLE TABLE

SHIPS

The workhorse of the Scout service is undoubtedly the Type S Scout, based on a 100-ton, wedge-shaped hull. This vessel is a common sight in the spacelanes and starports and, for many, the Type S *is* the Scout service. Another vessel frequently used is the 50 ton surveyor (see *High Guard*, page 92), a specialist small craft rarely found outside of the scout service.

However the Scout service uses many other types of ships in its operations, including variations on the Type S. This section details the most common variants found, along with notes on the advantages and drawbacks of each design or configuration.

Type SX Frontiersman

The SX is a 150 ton TL11 Scout vessel designed to operate in low stellar density, lower technology frontier areas. The initial design specifications support at least a range of jump 4, coupled with a simplified maintenance requirement that does not reduce the performance of the classic Type S scout, and would be easily reconfigurable for multiple mission profiles. The result is a ship which is a 150 ton, stretched Type S with the additional capacity dedicated to extra fuel and modular mission modules, a highly tuned TL11 jump drive and a vastly upgraded avionics and sensor suite.

The Key to the design is the type 4 computer system, more typical of a ship much larger in size, which allows a highly automated and reduced cockpit design (less than half the volume of a typical 100-200 dton ship). Additionally, the cargo bay is configured to hangar a 30 ton Ship's Boat or, if fuel and endurance is reduced, a 50 ton Surveyor (see page 75).

While the original intent was to use standardized 30-ton cutter modules, in practice the mission requirements resulted in customized modules that must be installed in pairs, with extensive cross linkages and the ship to function. The bays can accept standard modules, but they are generally non-functional except in the simplest cases, and the performance and range of the ship is reduced to that of an excessively bulky Type S scout. Similarly, the custom modules can be singly fitted to a standard cutter for transport, but are essentially non-functional. As a result, the SX has never been as physically modular as the Scout service desired, and while variant load-outs do exist, they are generally installed at initial construction, and require shipyard work to change. The loss of modular functionality nearly doomed the design from the beginning, but a limited number were contracted for under the hope that they would provide a "mini survey scout" for areas which did not rate a regular 400 ton Survey Scout. Initial deployment indicated that the loss of modularity was less crucial than anticipated, and that while its effectiveness as a mini-survey ship was less than perfect, it makes an excellent sensor /picket vessel with its range and low maintenance requirements.

ADVANTAGES:

- Jump 4 Range; Jump drive and Main computer optimised for rapid sequential and/or deep space jumping.
- Highly configurable high-power sensor and computing systems allow extreme sensor range and acuity, Scout specific sensors and telemetry, and rapid jump calculations.
- Good manoeuvrability while in evasion mode as well as massive ECM and ECCM potential for displacement class.
- Cheap and simplified maintenance at TL12 systems; standard maintenance at TL10 and TL11 systems for non-avionic components. Difficult, but possible, at TL9 for non-jump components.
- Expanded vehicle bay and increased cargo space relative to Type S standard.
- Can function in limited mode without modules, and secondary type 1b computer allows jump independent of main computer.
- High-end computer makes the SX excellent at running encryption programmes. Coupled with its range, it is a first-rate Courier vessel.

DISADVANTAGES:

- Required crew generally larger than usual for displacement class (double cabin occupancy assumed), resulting in generally cramped crew quarters, particularly on the long duration missions common to this type of ship.
- Computer systems non-hardened, and vulnerable to EMP effects.
- Extensive reliance automation in bridge and control systems; ship control rapidly and extensively degrades if main avionics system damaged or offline.
- No armour, one turret.
- Magazine space hard to access, and split between scientific probes and military packages.
- The type 4 computer stretches the requirement for TL11 maintenance. Unlike the rest of the ship, it is cutting edge TL11, and as a result, the avionics and bridge controls are best maintained at TL12, and only below that by sophisticated TL11 shipyards.

Type SX Frontiersman			Tons	Price (MCr)
Hull	150 ton Streamlined	Hull 3 Structure 3		5.5
Armour	None			
ump Drive	В	Jump 2	15	20
Manoeuvre Drive	В	Thrust 2	3	8
Power Plant	В		7	16
Bridge	Compact Bridge		7.5	0 .750
-	Holographic controls			0.1875
Computer	Model 4 Rating 20 Model 1 bis (backup)			5 0 .045
	Rating 5/10			0.045
Electronics	Advanced Sensors	+1 DM	3	2
Weapons	1 triple turret	Sandcaster ,Beam Laser, Missile Rack	1	3
Fuel	38 tons	Jump 2x1 28 days endurance*	38	
Modular Cargo bay			50	1.8333
Standard Cargo			2	
Staterooms	4 double cabins		16	2
Extras	4 Advanced Probe Drones		1	0.8
	Repair Drones Fuel Scoop			
	1 Fuel Processor		1.5	0.3 1
	Air /Raft		1	0.05
	In Standard Storage			2
	Ship's locker		4	0.275
Software	Jump Control/2	Rating 10		
	Manoeuvre/o	Detingen		
	FiCon/2 Evade/2	Rating 10 Rating 10		2 1
	Library/1	having to		
		P. I'		_
	Intellect	Rating 10		1





LONG RANGE EXPLORATION MODULE

If there is a typical configuration for the module bay it is the long range exploration module. Particularly in frontier and rift areas or operation, this is standard equipment, and the ship may never have done a module switch, and indeed, may not even have access to extra modules.

Exploration Module, long range			1,500,000
Fuel	זx Jump-2	30	
Extras		2	1,000,000
Drop Tank	Up to 50 tons extra fuel in drop tank.	2	100,000
fittings		4	1,000,000
Drop Tank (50 dt)		2	2,000,000
Lab/sickbay		1	50,000
Sensor upgrade to very advanced Add life Sensors & SIN Sensor Small Craft airlock	(difference between Adv. and V. adv sensors)		200,000
Cargo		9	
Total Tonnage & Cost		50	6,125,000

This module is the typical configuration for rift and low stellar density exploration. TL for drives and control systems is kept as low as possible to allow local maintenance/repair in areas that are typically less advanced than even frontier areas. Note that with drop tanks fitted the jump, manoeuvre and power plant ratings are not affected. If 10 tons of cargo are modified for fuel storage the ship is capable of 3 consecutive 2 parsec jumps, with drop tanks attached

LONG RANGE SENSOR MODULE

Long range Sensor Module			1.5
Fuel	1x Jump-2	30	
Extras		2	2
Sensor upgrade to very advanced (Inc. life Sensors)		2	8
Enhanced Signal Processors		14	24
Extended Arrays Solar Panels		0.7	0.07
Cargo		1.3	
Total Tonnage & Cost		50	35.57

This module is typical of covert surveillance (often of uncontacted technological planets), fleet scouts in wartime, and espionage missions. Many ships dedicated to this configuration also include stealth hull and jump options. The basic survey version of this Module drops the extended array (14 tons, 24MCr.) for a lab, briefing room, stateroom and 2 tons of Cargo, for a final cost of 13.57 MCr.

LAB MODULE

Lab Module 50dT				1,500,000
Computer	Model 4/20	Additional for module		5,000,000
Staterooms x 3		2 scientists, 2-4 lab assistants	12	1,500,000
Extras			12	3,000,000
Labs x3		1 per stateroom	4	500,000
Briefing room			4	4,000,000
Library			1	200,000
Small craft Airlock			2	2,000,000
Sensor upgrade to very advanced			10	12,000,000
Add life Sensors			0.7	70,000
Extended Arrays Solar Panels				
Cargo			4.3	
Total Tonnage & Cost			50	29,770,000

In this configuration, range is limited to 1x J2

The lab module is a useful variant, allowing a small research team to operate more economically than with a lab ship or heavy survey vessel. Unlike most modules, the Lab module can be deployed on its own either in orbit or planetside., and is designed to be detached from its ship with minimal effort. If planetside use is planned, the solar panel and sensor arrays are replaced with planetside versions and a small craft sC power plant (1.8 Tons) is added to the cargo bay, along with 1 ton of fuel. This will allow 8-16 weeks of power depending on demand and solar panel effectiveness.

SURVEYOR TENDER

Surveyor tender			1,500,000
Fuel		20	
Staterooms x3		12	1,500,000
Extras Docking clamp x2 2xSurveyor (external) Probe Drones x5 SmCraft Airlock	50 ton capacity	10 1 1	500,000 (89,748,000) 500,000 200,000
Cargo		6	
Total Tonnage & Cost		50	4,200,000/ 93,948,000

In this configuration, if both surveyors are carried, the ship jumps as a 250 ton hull, and performance reduces to Jump1 and 1G.

This configuration was an early attempt at developing a survey carrier. Unfortunately, while it can carry out its mission, it is extremely cramped while the surveyor crews are on board, and its ability to service and supply the surveyors on station is somewhat limited, as is its range. While not a successful variant, and largely replaced by the auxiliary merchant conversions and dedicated survey rider (see below) existing examples are still in use for budgetary reasons.

COVERT INSERTION MODULE

Covert insertion Module					1,500,000
Fuel		Internal Drop tank		6 (36)	
Extras					
Docking clamp x1	Up to 30 tons	Ships boat**		1	500,000
Drop tank fittings		up to 36 dt tank	3	2	1,000,000
Drop tank		36 ton tank			72,000
Armoury/Cargo			11	2	100,000
Lab/medical bay			15	4	1,000,000
Sensor upgrade to					
Military countermeasures			33	18	22,000,000
Model 4 Computer					5,000,000
Small Craft Airlock			34	1	200,000
Stateroom x2		Ships boat pilot , gunner, insertion team leader , medic	42	8	1,000,000
		Insertion team	47		
Low Berths x10				5	500,000
Cargo				3	
Total Tonnage & Cost				50	32,872,000

In this configuration, the ship jumps as a 180 ton hull. The 36 ton drop tank allows an initial 1x J2; total internal fuel is 44 tons, allowing 1x J2 and 28 days duration . **The ships boat is a modified stealth/assault version carrying 12 passengers, (team leader , medic 10 team members and 2 crew

Officially, this configuration is used to insert cultural survey teams onto precontact moderate or low tech planets. Unofficially, it is a favourite of the scout special forces teams; additionally many of these ship variants have been transferred to various military branches as commando transports, and deep penetration espionage teams. Typically these versions have their drives upgraded to include both rapid and stealth jump options, and a stealth hull. Medical bay and medic are to maximize survival of low berth crew/passengers.

Passenger Module

Passenger module		1,500,000
Staterooms x 9	36	4,500,000
Escape pods x 9	4.5	900,000
Extras		
Library	4	3,000,000
Airlock	1	200,000
Cargo	4.5	
8-		

This module is used for transfer of scout personnel, or VIP transport as needed. It is also capable of being deployed as temporary housing; often with a small craft sC power plant (1.8 Tons) added to the cargo bay, along with 2 tons of fuel, giving about 16 weeks power.

CARGO MODULE

Cargo module				1,500,000
Armour	Titanium steel	2 points	2.5	75,000
Extras				100,000
airlock		1	1	
Cargo			46	
Total Tonnage & Cost			49-5	1,675,000

This is often used on the Terrapin stations (see below) to extend crew endurance. Otherwise, it is used to move important though nonhazardous equipment other carrier space is unavailable.

HAZARDOUS CARGO MODULE

Hazardous cargo module				1.5
Armour	BSD	6 points	2.5	•75
Extras				
Reinforced Hull		ז point	2.5	5
Reinforced Structure		3 points	5.0	10
3 x Vaults			36	18
Stateroom			4	0.5
Total Tonnage & Cost			50	35.75

This Module is used to transport dangerous or highly valuable cargoes or lifeforms. The stateroom is for one or two special handlers/ guards who often accompany such shipments. The Vaults can each maintain a different life support and gravity environment and/or be reconfigured to provide from one to three contiguous storage areas. All vaults are also equipped with hazard reduction and breech containment equipment as necessary. In extreme cases the stateroom space can be used to install an appropriate self-destruct device. The module does not have a dedicated airlock, but does have an armoured high security access door in the stateroom, which can potentially double as an airlock. The vaults are generally configured to require removal from the module before access is possible.

SYSTEM DEFENCE MODULE: AUXILIARY CARRIER

System Defence Module: Auxiliary Carrier			1,500,000
10 ton Fighter x2			(36,000,000)
Hanger storage x2		26	5,200,000
10 Ton Fighter x 2 standard storage		20	(36,000,000)
Staterooms x 1	Flight crew x2	4	500,000
Total Tonnage & Cost		50	7,000,000/ 79,000,000

In this configuration, range is limited to 1x J2 and ships crew is limited to 3 (pilot, Navigator and gunner) plus 4 pilots for the fighters. Fighter maintenance crew is housed in the module stateroom.

In areas where the Scout service is the only law in town, this module can provide some useful firepower to the usual anti-pirate and smuggling patrols. Few Pirates are willing to scrap with four fighters.

SYSTEM DEFENCE MODULE: STRIKEBOAT

System Defence Module: Strikeboat			1,500,000
Missile/ Torpedo (TL+2) Bay(replaces Turret)		37.5	15,000,000
Ammunition	150 missiles or 5 torpedoes	12.5	
Total Tonnage & Cost		50	13,500,000

This module requires removal of the standard triple turret to free up the one hardpoint.

In this configuration, range is limited to 1x J2, and the Air/Raft and internal cargo space is devoted to reloads (72 missiles or 2 torpedoes). Crew includes two gunners for the bay. The torpedo variant has one set of reloads. Either variant will almost always be limited to wartime service, filling the role of the classic PT Boats of present day earth: cheap easily destroyed attrition units, nonetheless having the potential to scoring serious damage upon larger ships.

SYSTEM DEFENCE MODULE: GUNBOAT

System Defence Module: Gunboat				1.5
fuel		1x jump 2	30	
Barbette	Particle beam-10	Very high yield,	5	10
Extras Dedicated type B power plant for Barbette Fuel for power plant Sensor upgrades: countermeasures Enhanced proc.			7 1 4 2	16 4 8
Cargo			1	
Total Tonnage & Cost *In this configuration, the single air/raft is no	t carried, and is replaced	by supply storage	50	39,500,000

This module requires removal of the standard triple turret to free up the one hardpoint.

EMERGENCY MODULES

Two other modules are the emergency/refuge modules of the turtle series. These are generally only carried for relocation purposes, and are intended for autonomous operation. The Turtle class station is a cheap and reliable emergency refuge, often scattered around belts, near remote outposts, and likely gas giants. Interestingly, the design predates the Frontiersman class, and has been in use since the first Imperium, Many functioning stations from that period can still be encountered in some systems, albeit with a T10 control system of double mass and cost of the standard TL12 system. Support of the turtle station was one factor in designing the SX frontiersman to support a 50 ton module.

The goal of the station is to provide a basic survival habitat at minimum cost, using low tech components, and to generally be too cramped and utilitarian to use as a clandestine base or source of spare parts. Any entry into or docking with a Turtle will immediately cause it to power up, and activate a long range emergency beacon, which cannot easily be disabled without official codes. The station will also be activated by a distress signal. Where possible, survivors and or damaged ships will approach the station and either dock or airlock transfer.

In addition to providing emergency shelter and life support, a turtle is capable of limited response to distress calls using remote or programmed control in situations where the survivors cannot reach the stations location. The station can be signalled to use its reaction motor for a two burn acceleration/deceleration flight to a rendezvous point. Note that fine control of the rendezvous is difficult, and velocity matching with the survivors is inexact at best; but minor mismatch in velocity is often an easier problem to overcome than a great distance.

Operational radius with reaction drive is approximately 600,000 km with continuous burn, much further with a coasting period. Alternately, the station can make planetfall if at least 1 G hour of fuel is still available, although doing so will generally damage the station beyond reusability.

Note that the station can itself support one module if needed, although reaction drive endurance is reduced to 2 Hours.

Hull Standard configuration Rad shielded	50 Tons Flattened sphere			1.5
				12.5
Cockpit			1.5	0.5
Computer	TL11 drone control		1.5	2
Armour				
J Drive				
M Drive	sC reaction Solar sail	۱G	0.75 2.5	1.5 0.025
P Plant	Solar Panels only		0.18	0.018
Fuel				
Reaction Drive	4 G Hours		5	
Staterooms x 1 Low berths x44			4 22	0.5 2.2
Extras Lab/Med Bay 90Dt Docking Clamp Airlock x1			4 5 1	1 1 0.2
Cargo			3.57	
Total			50	23,493,000

TURTLE CLASS EMERGENCY STATION

TURTLE II EMERGENCY STATION

Hull Standard configuration Rad shielded	50 Tons Flattened sphere			1.5
Cockpit			1.5	12.5 0.5
Computer	TL12 drone control		1.5	2
Armour			-	
J Drive				
M Drive	sC Solar Sail	۱G	1.5 2.5	3 0.025
P Plant	sC Solar Panels		1.8 0.18	4 0.018
Fuel	2 weeks at full power		1	
Staterooms x 2 Low berths x44			4 22	1 2.2
Extras Lab/Med Bay 90Dt Docking Clamp Airlock x1			4 5 1	1.0 1.0 0.2
Cargo			3	
Total			50	28.743

The upscale version of the venerable Turtle, the Turtle II station is capable of fully autonomous response to distress signals, and is in fact fairly mobile. The terrapin can maintain full life support and 1g constant acceleration for 2 weeks, giving it an operational radius of close to 2,000,000,000 km.

With solar arrays deployed, and operating at low thrust (.1g) power can last for 8 weeks, or indefinitely if at minimum power. It is typically found in richer systems with moderate volumes of traffic. It was originally intended to allow the turtle to be phased out, but cost and practicality has thwarted this plan. Unfortunately, it is also more likely to be hijacked or used as a hideout, despite the addition of security measures.

Civilian Variants

As the increased cost and complexity of the final version of the SX frontiersman reduced the Scout Services orders, the primary builder, Martin-Lamaar of Remulak (MLR) has released civilian versions with modules permanently installed (reducing cost as the hull space is no longer modular) and civilian grade sensor and avionics systems. All such versions are only capable of a single 2 parsec 259jump.

These variants of the Frontiersmen class hulls are sold as the popular Connestoga class light trader with a basic type 2 (or 1 bis) computer, and civilian grade sensors. Note however, that some frontiersmen have made it onto the surplus market, generally with sensors intact, and occasionally with the hugely overpowered type 5 computer. The basic Connestoga versions are the liner and cargo hauler types with permanent installations of the basic passenger or cargo module.

Two other civilian specific configurations are noted below.

Civilian tramp freighte	r		1,500,000
Cargo		39	
Staterooms x 2		8	1,000,000
Low berths x 4		2	200,000
Extras			
Escape pods x2	1 per stateroom	1	200,000
Total Tonnage & Cost		50	2,900,000

In this configuration, range is limited to 1x J2

Civilian Yacht				1,500,000
Launch	Standard storage		20	14,000,000
Staterooms x 3	Owner & guest	one standar one double size		1,500,000
Extras	•			
Escape pods x4		1 per stateroom	2	400,000
Briefing room			4	500,000
Library			4	4,000,000
luxuries			4	400,000
Cargo			4	
Total			50	12,300,000

In this configuration, range is limited to 1x J2

In an attempt to gain access to the luxury and megacorporate market, MLR shipyards have produced a luxury variant: the "Gold Star" class yacht, with a non modular configuration as above. The sensors are typically civilian standard, but the computer is retained to provide a majordomo/head butler AI for the ship.

A long range variant (Rift Star class) omits the launch, 4 ton stateroom, library and briefing room for 30 tons of fuel and 2 tons of cargo allowing a second consecutive two parsec jump.

Modular survey and Interdiction Station

In keeping with the modularity concept, the Scout service has designed the Terrapin class scout station. This design is typical of a scout survey station, and typically deployed in orbit around the mainworld. Solar arrays may or may not be deployed, depending on the need for secrecy. While the Terrapin station is capable of deployment as is, it invariably has at least 4 modules attached, typically 2 lab, 1 cargo, and often 1 passenger or 1 long range sensor. When used as station modules, the fuel storage in the module is typically replaced with cargo storage.

The station can support four surveyors by itself, although double occupancy will be required if full crews are used. The cutter is used by the main station crew as needed.

It has also been used as an interdiction station in situations where interdiction is combined with study. Typically, one missile bay module will be included in such cases. A few have been pressed into service as defence Satellites, typically supporting 3 fighter modules and one cargo module dedicated to stores, military spares and reloads.

DETAILED DESCRIPTION				
Hull Distributed configuration Rad shielded	400 Tons Flattened spheres			14.4 100
Bridge, command	Survey control		80	3
Armour				
J Drive				
M Drive	В	ıG	3	8
P Plant	B fission plant Solar Panels	Рі	14 .7	32 0.07
Fuel Power plant	ı year fission fuel	(HG corrected rules)	4	4
Computer	Type 3 rating 15			2
Sensors Survey Enhanced processors			10 2	10 8
Staterooms x 15			60	7.5
Extras Lab/Med Bay Science labs x1 Briefing rooms x 1 Library Vaults x 1 Armoury Maintenance hangar. 9x 90Dt capacity Docking Clamps Cargo Software	100 ton capacity 4x surveyor, 1x cutter & up to 4 Supply modules Manoeuvre/0 Intellect Library	Rating 10	4 4 4 12 2 130 45 21	1 1 0.5 4 6 0.5 26 9
Total			399.7	237.97

With any modules or small craft attached, the stations M drive output is effectively reduced to zero, although orbital corrections are possible.









Type FS Survey Scout 'Far Reach'

Based on a 500 ton, streamlined, wedge-configured hull, the Type FS is designed with long-range survey and exploration missions in mind. Its configuration is designed for practicality and utility rather than comfort, and in this configuration it is kitted to the minimum survey and exploration standard required by the exploratory branches of the Scout service.

As the Far Reach is designed to operate in regions where high EMP activity is a possibility, its electronics and other sensitive systems are hardened. Its computer system is a modified Model 4, with integral telescope calibration and tracking. Once slaved to the various additional sensor packages (SA3, SIN Sensors, and so forth), the Far Reach is an excellent example of the kind of survey vessel the Scout service relies upon for long-range scouting and exploration missions. It is equipped with a laboratory, allowing for field samples to be analysed to a reasonable degree.

For close-up work, the Type FS carries, as standard, a 50 ton Surveyor, which is intended for planetary activities and to supplement the main ship's surveying and exploratory capabilities.

Normal crew consists the pilot (and captain), a navigator, 2 engineers, 3 gunners and 8 surveyors.

ADVANTAGES:

- Jump 4 Range; Jump drive and Main computer optimised for rapid sequential and/or deep space jumping.
- Highly configurable high-power sensor and computing systems allow extreme sensor range and acuity, Scout specific sensors and telemetry, and rapid jump calculations.
- Equipped with a full sensor and telescope array for extensive field work
- Hardened electronics prevent against EMP damage. In times of military need, the Type FS makes an excellent advanced, long-range scout vessel for a main battle force.

DISADVANTAGES:

- Deploying a full flight crew and survey/exploration mission team requires double cabin occupancy, making the ship cramped in the crew quarters. The laboratory can be jerry-configured to offer additional sleeping quarters.
- No armour, one turret
- Telescope arrays are susceptible to attack or interference.
- Limited attack/defence capabilities
- Low cargo capacity (4 tons)

DETAILED DESCRIPTION

Type FS Far Reach			Tons	Price (MCr
Hull	500	Streamlined		35.2
Armour	None			
ump Drive	К	Jump 4	55	100
Manoeuvre Drive	К	Thrust 4	19	40
Power Plant	К		31	80
Bridge			20	2.5
Computer	Model 4 (fib)	Rating 20		7.5
Electronics	Advanced		3	2.0
Weapons	2x Triple Turret (2 Beam Laser 1 Sandcaster) 1x triple missile turret	Fire control	2	6.5
	2x unallocated hardpoints	Fire Control	1	3.25
		Reserved for FiCon	2	
Fuel	240 tons	Jump 4 and 28 days endurance	240	
	fuel scoops fuel processors		2	1 0.1
Cargo	10 tons		10	
Staterooms	8 (can be configured for double occupancy)		32	4.0
Extras	Surveyor		65	44.874
	in hanger		8	13
	2 x Air Raft		2	0.55
	8 x Advanced Probe Drones			1.6
	SIN Sensor ACT			0.05
	Optical and Radio Telescope array			0.05 0.015
	SA3			.02
	Life Scanner/Analysis			
	Tri-Dee bridge Imaging Laboratory x2			.04
			8	2
Software	Jump Control/4 Manoeuvre/1 Library/1	Rating 20		0.4
	Intellect	Rating 10		1
	Evade/1	Rating 10		1
	Fire Control/2	Rating 10		4
	Advanced Calibration for telescopes	Rating 10		
Fotal Tonnage & Cost			500	350.599





200 Ton Special Circumstances Rapid Transit (Hornet)

Using a wasp-waisted, streamlined hull, this ship is used for Special Circumstances teams who need to operate in a comfortable environment for long periods either within a system or between them. The ship is equipped with arms and armament commensurate with needing to evade and return fire, but is essentially designed for fast transit and getaways.

As the crew need to operate for long periods, it is equipped with a Luxuries package which departs from the usual Scout mentality of living as basically as possible. Hardened Scouts denigrate the Hornet as an easy-living option for softies, but Special Operations agents praise the vessel's versatility and (relative) opulence.

The ship is equipped at TL12 and its computer systems and software offer excellent evasion capabilities at this level.

ADVANTAGES

- Fast and heavily armoured for a craft of its size
- Hardened electronics
- Pop-up turret for covert operations where obvious weaponry is a disadvantage
- Comfortable by Scout vessel standards
- Excellent endurance and evasion capabilities

DISADVANTAGES

- Very limited cargo space
- No onboard vehicles (such as an Air Raft)
- Distinctive hull design



DETAILED DESCRIPTION

Special Circumstances Rapid Transit			Tons	Price (MCr)
Hull	200	Streamlined		8.8
Armour	Crystaliron	8 Armour Points	20	3.52
Jump Drive	c	Jump 3	20	30
Manoeuvre Drive	E	Thrust 5	9	20
Power Plant	E		16	40
Bridge			10	1
Computer	Model 3 (fib)	Rating 15		3
Electronics	Advanced		3	2.0
Weapons	2x Triple Turret (Pop-Up) each 1 Beam Laser 1 Sandcaster	Fire Control	4	6.5
Fuel	80 tons	Jump 3 and 28 days endurance	80	
	Fuel Processors Fuel Scoops	80 tons per day	4	0.2 1
Cargo	9 tons		5	
Staterooms	6		24	6.0
Extras	Luxuries		2	0.2
Software	Jump Control/3 Manoeuvre/o	Rating 15		0.3
	Evade/2	Rating 15		2
	Autorepair/1			0.5
	Fire Control/2	Rating 10		4
Total Tonnage & Cost			200	100.00
Total Tolllage & Cost			200	129.02
EQUIPMENT AND SHIPS



400 Ton 'Fat' Surveyor

The Fat Surveyor was an interim design while the Survey Rider concept was being developed; it proved useful enough to be retained, especially in areas where its J1 is sufficient range.

Normal crew consists of a pilot, engineer, navigator, 2 small craft engineers and 18 surveyors.

It is simply a purchased or leased 400 subsidised merchant ship (Fat Trader) with a prebuilt survey package installed into its cargo space. Note that this is not configurable space, and requires extensive work, and a dockyard to add or remove.

The Fat Surveyor can deploy and support three surveyor boats (50dt), but is not itself capable of survey operations. While less effective at its task than the Survey Rider class, it is nonetheless far cheaper, and considerably faster to build, given that the basic hulls are already built.

DETAILED DESCRIPTION

Auxiliary Survey tender "fat Surveyo	r"		Tons	Price (MCr)
Hull	400 tons Streamlined			17.6
Armour	None			
Jump Drive	С	Jump 1	20	30
Manoeuvre Drive	с	Thrust 1	5	12
Power Plant	С	Power 1	10	24
Bridge	Standard		20	2
Computer	Model 3 Rating Model 1 Rating	backup		2 .03
Electronics	Basic Civilian	-2 DM	1	.05
Weapons	None		-	
Fuel	52 tons	Jump 1 /28 days	52	
Cargo	14 tons	Jump 1 / 20 du/0	14	
Staterooms	12 cabins		48	6
	9x low berths		40 4.5	0.45
	13 escape pods		6.5	.65
Extras	Fuel Scoop		-	1
	1 Fuel Processor	20 tons per day	1	0.05
	Air Raft		4	0.275
	Ship clamp, (30 tons Max) Ship's locker		1	0.5
	Launch			13.569
	20 Probe Drones		20	2
	Repair drones		4	0.8
	1x surveyor,		4	(44.874)
	hanger storage 2x surveyor standard storage		65 100	13 (89.748)
	Briefing room		4	(89.748) •5
	2x lab		8	·) 2
	Library		4	4
	Medical Bay		4	1
Cargo			14	
Software	Jump Control/2 Manoeuvre/o Library/1	Rating 10		0.2
	Intellect	Rating 10		1
Total Tonnage & Cost			400	134.174/288.836
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EQUIPMENT AND SHIPS





Survey Rider

The Survey Rider is the scout service counterpart to the Navy Battlerider theory. Designed to deploy and maintain 4 Surveyors, the Survey Rider is an effective survey ship on its own, and operates at M2 while the external ships are detatched. Thus far, the design has proven successful in terms of time required to survey a system at multiple levels, but the cost analysis is less clear.

Normal crew consists of the captain, 2 pilots, a navigator, 4 engineers and 24 surveyors.

DETAILED DESCRIPTION

DETAILED DESCRIPTION				
Survey rider			Tons	Price MCr
Hull	600 standard	Hull 12 Struct. 12		48
Jump Drive	К	Jump 3	55	100
Manoeuvre Drive	F	Thrust 1/2	11	24
Power Plant	К	,	31	80
Bridge	Standard		20	3
Computer	Model 4 Rating 20 Model 2 Rating 10	(backup)		5 0.16
Electronics	Survey Sensors	+1 DM	10	10
Weapons				
Fuel	265 tons	Jump 3 (at 750 tons) + 28 days	265	
Staterooms	18	4 single, 14 double	72	9
Extras	3x Docking Clamps 90 tons max 3x Surveyors docked to clamps 1x surveyor in hanger 8xAdvanced Probe Drones Fuel Scoop Fuel Processors Air Raft Ship's locker Optical &EMS telescope array 2x Labs 2x Briefing Room 1xLibrary 1x lab/Med bay	бо tons per day	15 (150) 65 2 3 4 8 8 8 4 4 4	3 (134.622) (44.874) 13 1.6 1 0.15 .275 2 1 4 1
Software	Jump Control/2 Manoeuvre/1 Library/1 Intellect	Rating 10 Rating 10		.2
Cargo		-	25	
Total Tonnage & Cost			600	307.335/486.83

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100 Ton XP4 (Firebird)

The XP4 (eXpress, Packet J4) is commonly deployed as part of the Xboat network and on the frontier areas of the empire without xboat service. The firebird is the standard hull used to supplement the xboat system when physical delivery is needed, and in wartime, as a fleet courier or advance scout. In the latter role, the ship generally carries a 50 ton drop tank for an initial jump allowing two consecutive four parsec jumps, and typically has the configurable space committed to sensor upgrades and fuel. Several civilian versions exist, often used by megacorporations to allow secure private communications routes.

DETAILED DESCRIPTION

Firebird XP4			Tons	Price MCr
	100 tons Standard	Hull 2 / Structure 2		2.0
Jump Drive	В	Jump 4	15	20
Manoeuvre Drive	B Tech 12 (x.75)	Thrust 4	2.25	16
Power Plant	В	Power 4	5	16
Bridge	Standard Bridge		10.00	.5
Computer	Model 4 Rating 20			
Electronics	Basic Military	+o DM	2	1
Weapons	1 triple mixed turret	Sandcaster ,Beam Laser, Missile Rack	1	3
Fuel	Jump 4+ 4 weeks		48.0	
Staterooms	1 double		4.0	
Extras	Fuel Scoop		1.0	1.0
	50dt drop tank fit		2.0	1.0
Software	Jump Control/4 Manoeuvre/o Library/1	Rating 20		-4
	Evade /1	Rating 10		1
	Fire Control/2	Rating 10		2
Cargo	configurable		9 .75	0.285
Total Tonnage & Cost			100	63.185



EQUIPMENT AND SHIPS



EQUIPMENT AND SHIPS

100 Ton XPS6 (Mustang)

The Mustang XPS6 (eXpress, Packet, Secure, J6) is an extremely expensive, cutting edge courier, capable of maximum range and speed, and is only used for the most urgent and important missions. The ship relies on drop tank technology, as it has insufficient internal fuel to support a jump 6 –a jump 3 is possible, though this would seldom be used except in the direst of situations, as wear and tear on the ships high tuned systems is essentially the same as for a jump 6.

Vault is either 6dt cargo, or stateroom +1-2 escape bubbles . (~=2 Mcr additional).

The Mustang is designed, and its crew trained, to deliver an intact cargo at any cost, as fast as possible. Typical missions for the XPS6 would be transport of critical personnel in war time (such as a renowned admiral), vital military or political intelligence (a treaty, declaration of war, news of crucial assassination) of fantastically valuable items –such as ancient artefacts.

The bridge is not compact, avoiding -1 dm to pilot rolls – but double stateroom occupancy is required for the crew, and endurance is limited. No fuel processors are carried as it would never jump without refined fuel. Scoops are included, as power plants are much less effected by unprocessed fuel. The ship is armed, (turret maximizes point defence) but the emphasis is on escape in any kind of hostile encounter. In passenger mode, the vault is sealed and able to maintain life support independently for one man/weeks. Extra space in the vault mode is invariably committed to sensor upgrades if possible. The intellect program is capable of running pilot-2, and bringing the ship to its insystem destination by itself.

DETAILED DESCRIPTION

Mustang XPS6 secure courier			Tons	Price MCr
Hull	100 ton Streamlined Rad Shielding	Hull 2/Structure 2		2.2 25
	Reflec	+3 armour v laser		10
	Self Sealing	5		1.0
Armour	None			
Jump Drive	C Stealth	Jump 6	20	45
Manoeuvre Drive	C Tech 12 (x.75)	Thrust 6	3.75	24
Power Plant	C Tech 15 (x.75)		7.5	48
Bridge	Standard Bridge holographic		10.00	.5 .125
Computer	Model 5 Bis Rating 25+5			15
Electronics	Basic Military	+o DM	2	1
Weapons	1 triple mixed turret	Sandcaster ,Beam Laser, Missile Rack	1	3
Fuel	Internal fuel Drop tank		41 (50)	
Staterooms	1 double		4	2
Extras	6 dt vault		6	12
	50 ton drop tank fit		2	1
Software	Jump Control/6 Manoeuvre/o	Rating 30		0.6
	Evade/3	Rating 25		3.0
	Fire Control/2 Library/1	Rating 10		4.0
	Intellect	Rating 10		1.0
Cargo			0.75	
Total Tonnage & Cost			100	198.425



XLC5 (Stingray)

The XLC5 (eXpress, Long range, Courier) Stingray's official configuration and use is as a high speed packet courier able to outspeed the standard xboat system. In this version, it excludes the fixed double particle array, Air/raft and fuel processors, allowing an additional 6 tons of configurable space. Note that all XLS hulls are based with the equipment necessary to rapidly convert them to the intruder variant.

In the unofficial configuration, nicknamed the "Mighty Munchkin" (derivation unknown), the Stingray takes advantage of its massive powerplant to mount a particle beam weapon, is equipped with a stealth drive, and is entirely dedicated to "black" or raiding missions. With jump tanks it is capable of two rapid 5 parsec jumps.

It cannot be found legitimately on the civilian market. In wartime, it is used as a deep penetration commerce raider, courier interception, or an insertion ship for special forces (using double staterooms or low berths as needed). In peacetime it is seldom used, but if so, generally as an escort for couriers or the occasional Sunday punch against pirates or other small-scale opponents. Based on its cost (which, with the stealth drive, is hideously expensive) and the fact that it is far more vulnerable than either, its missions are generally very important and highly secret and there are very few of these vessels in service.

DETAILED DESCRIPTION

DETAILED DESCRIPTION				
Stingray XLC5 L.Range Courier			Tons	Price (MCr)
Hull	200 ton Streamlined Self sealing Rad Shielded Heat shielded Stealth	Hull Structure		8.8 50 20 20
Armour	None			
Jump Drive	E Tech 15 build (x.95) Rapid Cycle Jump Stealth Jump	Jump 5	28.5	60.5 +30.25
Manoeuvre Drive	E Tech 12 (x.75)	Thrust 5	6.75	40
Power Plant	E Tech 15 (x.75)	Power 5	12.00	80
Bridge	Standard Bridge holographic		10.00	1.0 0.25
Computer	Model 4bis	Rating 20+5		7.5
Electronics	Very Advanced	+2 DM	5	4
Weapons	 Triple mixed turret Triple Turret 	Sandcaster ,Beam Laser, Missile Rack 3 x Particle beam TL 11 build : Long Range, Very High yield	1 1	3 25
Fuel	116 tons	Jump 5 4 weeks	116	
Staterooms x 2			8	1
Low Berths x 3			1.5	0.15
Extras	Air/Raft Fuel processors x2 Fuel Scoop 2x50dt tanks fit	Configurable 40 tons per hour Configurable	4 2 4	0.275 0.1 1 2
Software	Jump Control/5 Manoeuvre/o Evade/3 FiCon/5 Intellect Library/1	Rating 25 Rating 25 Rating 25 Rating 10		-5 3 10 1
Cargo		configurable	6.25	0.275
Total Tonnage & Cost			200	312.975/ 369.6

EQUIPMENT AND SHIPS







This chapter deals specifically with two areas of prime importance to the Scout service: what happens when a new race is discovered (or an old acquaintance is strategically re-established) and the exploration and survey of existing and new systems and worlds.

These areas are specifically in the remit of the Scout service. Save for accidental, chance encounters, no other service has either the mandate or the bespoke capabilities to exhaustively survey or approach First Contact situations. The Scout service is tasked with extending knowledge, influence and understanding, but do so in a non-militaristic, non-threatening way. It takes dedication and a certain skill and mind set to achieve these ends successfully, and the Scout service is equipped to do so. As a result, the Scout service is entrusted with the representation of the prevailing authority, human or otherwise. It is up to the Scouts to act as the primary ambassadors, establishing a solid base for relations, before other professionals (with keen agendas) to take over.

Survey and First Contact go hand in hand; one often leads to the other. They are, however, discrete activities with their own specialisations and protocols. If a Survey mission identifies intelligent life, it does not automatically initiate First Contact: instead it watches, assesses and then calls in the Contact branch, arming it with all pertinent information so that the First Contact procedure is as informed as it possibly can be. Conversely, where Contact has discovered a new race but the system and world has not been surveyed, Contact ensures that all information and permissions are secured to facilitate Survey branch doing its job fully and with as little chance of a risky incident as possible.

FIRST CONTACT PROTOCOL

The First Contact protocol is an extensive and rigorous process for establishing initial relations with a new intelligent species. Even before the protocol begins, certain facts must be established, usually by answering the following questions:

- 1. What is the technology level of the species?
- 2. What observed behaviours have already been demonstrated?
- 3. Does the species know of our existence, or is it possibly aware of it?
- 4. Has any known species already undergone First Contact with the new species? What were the results?
- 5. Might establishing First Contact damage the new species in any way, or lead to its damage?

Simply because an individual from an advanced, space-faring race is capable of initiating First Contact, it does not necessarily follow that First Contact should occur. The Scout service's Contact branch always asks itself the five questions above before First Contact protocol is initiated. If the answers to the questions are such that First Contact might be damaging to either party, in either the short, medium or long term, then Contact is fully sanctioned to withdraw – either to leave the species completely alone, or to maintain a discreet distance, monitor, and establish what future point will serve as the best time for a First Contact attempt.

The answers to the basic questions depend purely on the new species and the circumstances of discovery. Therefore Contact branch is completely free to reach its own conclusions, after assessing all risks, and then taking the necessary action.

However, when it is decided that First Contact Protocol should be initiated, it works thus.

First Assessments:

Assess the potential for mutual communication. If there is the opportunity to begin linguistic analysis in order to build translation modules, then this should form the primary step before any further contact is made.

Assess the immediate Impact of Encounter: what is the likelihood of aggression? If aggression is possible, what is the level of the threat? Once established, appropriate defensive (but not aggressive) measures may be put in place before contact begins.



Assess two-way threat potential. Does the species and its technology, appear to pose an imminent threat or possibly cause harm to human life? Conversely, does human life and/or its accompanying technology appear to pose a threat or cause harm to the species? If any risk is evident, First Contact should be terminated immediately and only resumed when the threat can be countered.

Course of Action:

If it is perceived or verified that harmful impact, whether mutual or unilateral, is imminent or likely, action must be taken to separate the Contact team from the species. Practicality must always dictate efficiency: if it is more practical to retreat, then this is what should be done. In general, withdrawing from the species' home environment is the best option. It must always be assumed that both the species and the Contact team are a potential source of pathogens and microorganisms that may be harmful to life.

Where it is necessary and practical to do so, the Contact team should construct a suitable environment for the species, if this will facilitate successful first contact. This may be a habitat supporting a particular atmospheric type or other environmental factors. The overwhelming consideration is the comfort and safety of the species, once all other risks have been taken into consideration.

If conditions do not permit a retreat, or, alternately, if separation and/or isolation of the species is not possible, and a potential impact or threat seems likely to arise, defensive measures may be necessary and are permissible. In such an event, self-preservation is likely to dictate action. However, all discipline must be exercised if defensive action proves necessary. Where physical force is the only alternative, the dictate is:

Use no more force than is absolutely necessary to secure a safe withdrawal. Do not inflict force until it has been either inflicted, or its outbreak is inevitable. Hurt rather than maim. Maim rather than kill.

If injury or death results from the initial encounter, but no further injuries or losses are sustained upon withdrawal, then the incident is to be classified as either Accidental or a Self-Defence response: no further retaliatory action is to be considered or initiated.

ENVIRONMENT

The environment for the contact must be fully assessed and established. Primary questions:

- Is the contact in space/orbit or planet-side?
- If in space, is the contact aboard a species' vessel or a Contact vessel? Does a mid-way, neutral point need to be established? What are the atmospheric considerations?
- If planet-side, is the contact in the open or within confines? If in the open, is the area accessible for withdrawal transportation? If in confines, has the safety of all parties been ensured, and are

exit routes clear and visible? If at all possible the confines should be visited first, or scanned for permeability, beforehand.

- What necessary protection or environmental factors need to be established to ensure the comfort of the species?
- What customs/traditions/greetings/formalities need to be observed? Ensure that all members of the Contact team are rehearsed in performing expected or required actions.
- What is the likely impact of Contact technology upon the initial meeting? If overt displays of technology are likely to cause offence or provoke a threat, Contact members are sanctioned to use covert or discreet devices for monitoring purposes only.

Contact must always consider and assess the impact of waste discharge/disposal upon the environment. EM Field interference (or other force/radiation interference) and its probable effect will need to be determined before contact begins.

Whenever it is possible, and to the best of one's capabilities, Contact should always minimise its impact.

If the environment for the contact initiation is unsuitable it may become unsafe for either party, Contact should consider a withdrawal rather than following through the initial meeting and being placed at risk. If it is possible to negotiate the environment for the meeting, then this is encouraged, as long as the environment remains equally beneficial (in terms of comfort and safety) for both parties.

Communication/Means of Contact

Before contact is commenced, the Contact team should fully establish:

The means of communication used by the species: audible/vocal, visual, chromatic, aromatic, pheromonic, mental/psionic.

Where an evident incompatibility of communication medium exists between species, time should be taken to attempt to understand and construct a bridge for communications. If this proves impossible, withdrawal from the contact situation is preferable to miscommunications, or frustration through miscommunication leading to an escalation of violence or a similar threat.

No assumptions about the intent of the species, relating to its wishes, desires or agendas must be made. All contact comes with an open mind and non-judgmental approach. Contact agents are required to suspend all preconceived notions about a species or race and to adopt a fully open stance when establishing and commencing communications. Personal feelings are to be fully subsumed at all times. No degree of prejudice, disdain or revulsion is to be exhibited.

Where possible, and where technology permits it, initial contact, certainly with the purposes of establishing a common language for communication, should be via computer and communal

FIRST CONTACT AND SURVEY

may be acting upon a similar ethical principle of non-interference or minimal impact and may wait for communication from Contact, or its technological aid. In such a case, the species may provide a primer for one or more congruent modes of communication. If not, and if the species seems to be making no clear instructive signs, then trial and error is the only way of proceeding. Contact is expected to prepare a comprehensive list of communication methods and work through them methodically, with a full catalogue of results and conclusions, for entry into the Contact Log.

Contact must always remember that any potentially superior lifeform may still be harmed and/or impacted by any 'less' intelligent entity, through an accident/mistake in the course of the interaction. On a potentially less severe level, sometimes this will be an error in the use/misuse of language that initiates a negative and/or unhelpful response. This is natural in any case where translation/ interpretation of a foreign language is operant. Such an event is also an opportunity to assess the social intelligence of the species.

If a direct form of communication has been established, whether rudimentary or advanced, whether auditory, visual (including sophisticated forms such as symbolic representation or logic), or tactile/other sensory methods and the communicative environment is assessed to be non-threatening/hostile, then the acquiring of basic categories of information about the AE* {and presumably the HE*} should typically follow the following agenda:

Identity Purpose Needs Plans

Identity: to establish a basic form of indication or enabling reference to both Contact and the species. Once such basic indicators have been established, a more complete identification of the species is necessary. What is the status/role/position of the species representative in regards to its own kind? Is the species a leader or official/designated representative of its kind? Alternately, is the representative a refugee of some kind? It is imperative to gather as much information about the species as possible before seeking/ requesting contact with any form of leadership. If, however, the species representative has communicated clearly that it is a scout/ ambassador or other mandated representative of its race, then this issue of leadership should be addressed. Contact is always acting in a fully mandated capacity, and all Library programmes aboard standard Scout vessels carry the appropriate marks of authority in all known languages.

Purpose: determine the specific and general reasons that the species has come to its current location. Care must be exercised where the purpose may involve the species' cultural reality (war, for example), religious beliefs and/or customs. The species may have what is akin to a human scientific agenda/purpose. Such a possibility may provide a valuable opportunity for cooperation/collaboration. Needs: the survival requirements of the species. Needs assessments will typically follow from purpose assessments. A species may have need to be where it is due to the presence of one or more dependent resources. This can also be an important opportunity to establish a cooperative/beneficial relationship. It is important to be thorough in assessing the needs of the species to avoid potential sources of conflict.

Plans: the methods or strategies for securing the species' needs. Needs assessments will require more advancement in communication, as well as mutual trust. A species may be reluctant to communicate its plans, or reluctant without communication with others of its kind, or those which it represents. The species may have no such plans in that in may be self-sustaining (via technological or organo-structural means), or simply be engaged in harmless exploratory activity (vacation, or its equivalent).

Subsequent Assessments

In the event that contact and compatibility of means of communication has been assessed, and whether or not the species possesses a congruent consciousness, and communication has been established, more detailed assessments of the species must be made. This is particularly so with species that are assessed to be incongruent with Contact's consciousness or ontological structure. It is presumed here that all life-forms, whether possessing an analogous physiologic nature (an analogous genetic "code" or replication memory structure), or not, have evolved under selective pressure(s) of some kind (Knowledge of the indigenous conditions of the species' native world will aid in identifying these pressures). Some information in this regard may be collected via the First Assessments Protocol. However, no such assessments, no matter how thorough/detailed, can accurately ascertain the full and true nature of the species.

Given the above presumption, basic biological needs must be determined. It is also presumed that all life forms require the intake/ extraction/utilization of energy of some kind in order to function, and that all life forms have developed strategies to obtain/secure these energy needs. Given this, what are the energy sources/resources required by the species? What are the AE's strategies for securing its energy needs/resources?

The Contact branch of the Scout service presumes that all life forms possess some means of self-replication/regulation, although such means may not be obvious or immediately discoverable. What are the reproductive/replication needs of the species? What strategies does the species use to ensure reproduction? How do these strategies impact upon Contact?

Can the short and/or long-term survival strategies of the species be determined? Can advantages/disadvantages to Contact be assessed? If such assessments cannot be made at the present time, and communication with the species is not/no longer possible, then a commitment to long-term study/analysis may be required. Remote

FIRST CONTACT AND SURVEY

information networking. Once communications have reached a stage where a physical meeting has been agreed, then authorisation is given to establish the details for the meeting (subject the earlier parts of the protocol relating to safety and withdrawal). All meeting arrangements must be mutual. All electronic communications are to be encrypted, stored and archived. No deviation from agreed meeting procedures is permitted unless extenuating circumstances (such as those relating to safety of either party) dictate it.

Translation programs must be initialised as soon as possible. Translation sub-protocols are as follows:

- Understanding of basic communicators (I, You, We, They, Us. Names. Simple nouns, verbs and adjectives.)
- Establish simple mathematical concepts (Base, common distances, ages, time measurements)
- Establish and use words for Peace, Co-operation, Trust, Agreement.
- Establish position in galaxy using simple descriptors, followed by astronomical co-ordinates if possible
- Establish a framework for more complex conversational propositions: words to use and avoid. Sentence length. Amount of time spent speaking.
- Avoid all reference to relative military strengths or capabilities, including your own. All First Contact exchanges are to be kept neutral.
- Technological development and achievement may be discussed as long as this specifically avoids military discussions. If mutual scientific help can be established, especially relating to healthcare, then it should be done so immediately.

IMPORTANT NOTE: An unintentional/accidental communicative event or exchange may occur spontaneously or immediately upon first encounter. In this event, Contact must withdraw and make an immediate assessment of the impact of the incident. If communication can be resumed, then it should be resumed at a mutually agreeable point. Apologies should be resisted initially; this may send signals of weakness. However acknowledging an error is permissible and is likely to prove necessary if communication is to be resumed.

In the absence of signs or instructive signals from the species to communicate within a specific mode, and given it is Contact which desires to communicate it is incumbent upon Contact to adapt its exploratory efforts to the assessed means of contact/communication of the species.

If the AE appears to have light spectra sensory capability, then forms of visible light-based communication may be explored.

If the species has been assessed as being superior in adaptive intelligence and means of communication, and also having been assessed as benign, then communication might first be initiated by the species. However, Contact should remember that the species viewing/sensing is often the best method of achieving this end and this First Contact protocol authorises Contact teams to establish such measures.

Typical Contact Mission Structure

Where Contact is involved in a First Protocol exercise, the personnel structure is usually thus:

MISSION LEADER

A Contact branch operative with at least 3 terms of service within the Scouts (and at least one term in Contact). The mission leader is responsible for ensuring that the First Contact protocol is fully observed, and for maintaining the welfare and safety of both his crew and those involved in the First Contact endeavour. It is usual for the Mission Leader to assume the role of primary contact with any new species, but he may delegate this responsibility to any member of his team, based on the spread of skills and experience available to him.

COMMUNICATIONS OFFICER

The Comms Officer is responsible for handling all electronic communications with a First Contact species, including translation and decryption protocols. Additionally he must establish a First Contact Log and ensure that each and every stage of the mission is fully recorded and approved by the Mission Leader. He may or may not form part of any direct contact delegation, and it is usual for the Comms Officer to remain remote from the main contact endeavour in order to ensure accurate records are maintained.

RISK OFFICER

The Risk Officer assesses all risks according to the First Contact protocol, and advises the Mission Leader on rising or falling levels of risk, and when a contact mission should be aborted. Before any mission involving a face to face meeting takes place, the Risk Officer, accompanied by the Security Officer, is in charge of surveying the meeting place and ensuring its compatibility with the First Contact protocol. If the First Contact is as a result of a third party encountering the species, the Risk Officer interviews that person or party in order to obtain all information that will inform the Contact mission.

SECURITY OFFICER

The Security Officer is in charge of ensuring the immediate security an d welfare of the mission and its personnel, as directed by the Mission Leader. Working with the Risk Officer he will determine exit and other defensive strategies. It is usual for the Security Officer to have at least one subordinate (usually two) who assist with planning and implementation of any security strategies.

FIRST CONTACT OFFICER

This post is often the Mission Leader, but may be someone else who has been involved in First Contact missions previously, and



who has served at least two terms in the Contact branch of the Scout service. The First Contact Officer is responsible for all direct contact with a new species and is expected to work fully within First Contact protocol guidelines unless directed otherwise by the Mission leader.

SCIENCE OFFICER

The Science Officer always has at least Level 1 in two Science branches. His responsibility is to assess all biological/environmental/ technological needs of any new species and inform the Mission Leadxer accordingly. If certain requirements need to be fulfilled, then he is expected to co-ordinate the necessary work. The Science Officer is often assisted by one subordinate and is usually part of the face to face contact delegation when a meeting occurs.

FLIGHT CREW

The flight crew usually consists of at least two pilots, a navigator, a comms officer and an engineer. Roles may be doubled with the mission team, but sometimes discrete flight and mission teams are assigned to a particular mission. The flight crew is answerable to the Mission Leader, but where the operation and safety of the ship is concerned, then the more experienced pilot is usually designated as first officer and responsible for the direct welfare of the ship.

Sophontological Categorisation

Sophontology is the study and categorisation of intelligent and self-aware creatures. The general categories of beings recognised under sophontology are:

Biological Intelligents (Biont):

Life that has evolved naturally from organic compounds, whether earth-like or exotic chemistry, as well as gene-engineered sentients. This category, the largest of all, includes

- Bionts (biological intelligence) such as baselines/ nearbaselines (those organisms that resemble, or appear close, to homo sapiens)
- Tweaks (creatures genetically optimised for the their environment)
- Su (baselines that have been genetically enhanced to exhibit superior characteristics to homo sapiens),
- Provolves (uplifted races, such as Vagr and Aslan)
- Splices (a deliberate amalgamation, or splicing, of two separate genomes to create a single, sentient or sapient entity)
- Bioborgs (biologically augmented bionts)
- Neogens (a generic term for any biont in which the original genotype has been artificially created or spliced from other species).

ARTIFICIALS

Any constructed, engineered creature (such as robots, androids or sapient AI networks/drones)

CYBORGS

The deliberate combination of Biont and Artificial, where constructed augmentation is used to enhance the biont.

SYBONT

A sophont syborg or sybornetic neogen. Artificial organisms that are neither purely organic, purely artificial, nor a cyborglike patchwork, but rather a uniform mixture of artificial and biological.

VIRTUAL

A sentient that does not have a physical body, or uses one only temporarily.

SUBLIMED

An intelligence that has completed transcended its original state of being to occupy a new form of existence or consciousness(perhaps extra-planar, or non-physical).

SURVEY AND EXPLORATION

The basic survey routine for new systems breaks down into five sequential phases:

- 1. Pre-jump assessment,
- 2. Initial system overview
- 3. Overall system survey phase
- 4. Mainworld survey phase
- 5. Final survey and Departure phase.

For archival purposes, each of the first four phases requires a log beacon to be dropped or updated, as appropriate, before the next phase is initiated. In all case a passive log beacon must be dropped or updated before departure jump.

Further, note that the first four phases all have both a range of goals and partial and complete mission abort criteria which must always be considered. Partial abort situations terminate the current phase of the survey, but may or may not preclude further survey actions; a mission abort terminates the mission, and requires an exit jump at the earliest possible opportunity consistent with the abort conditions.

Pre-jump assessment phase

The prejump assessment phase is generally carried out from closest system to the target of survey system (TOS). Ideally this will be no more than 2 parsecs distant, but circumstances will often require longer range, and, hence, less accurate initial assessment. Accordingly, any existing data on the system should be used, and compared with real time data wherever possible. In extreme cases, a deep space jump may be required to reach the TOS system, and this can be used as the prejump assessment point.

Typical survey equipment used in this phase will be archival data and extreme range passive EMS scans, including wide aperture visual survey. Typical time can range from one to five days, depending on range to TOS and preexisting data.

NOTE: in all cases Gas Giant (GG) Presence must be confirmed or eliminated by real-time observation, if return from TOS will require refueling before return. If no GG is detected, assume deep space refueling procedures will be needed.

GOALS

Confirm Existing basic data if previously surveyed. If unsurveyed , assess:

- Gas Giant Presence and gross system structure.
- Companion Star Presence
- Initial system structure
- Stellar anomalies

ABORT CRITERIA

Unless specified as possible mission target or risk environment, abort prejump immediately upon detecting:

- Evidence of red zone star or companion or GG type(extreme hazard)
- Evidence of Starfaring Habitation
- Evidence off red zone Anomalies
- Evidence of significant and unexplainable alteration or manipulation of system
- Evidence of anomalous artifact(s) at pre-jump distance

Outer system arrival and system overview phase

Entry into a new system is typically made at much greater distance than a typical system jump. The default entry point is above the system's orbital plane (ecliptic) in the Oort region (typically 50,000 AU from the star); this allows maximum chance of avoiding uncharted bodies, minimal interference in system scanning, and maximum discretion if system is inhabited.

Typical survey equipment used in this phase will be long range passive EMS scans, Neutrino and Jump particle detectors (ie, Deep Radar), as well as gravitic/densinometer scans as possible, and narrow aperture visual observation.

Typical time can range from one to two weeks depending on range to TOS and preexisting data.

GOALS

Confirm Existing basic data if previously surveyed. If unsurveyed , assess

- System structure: Number of significant planets belts and companions by orbit
- General Planetary description: classification of above orbit residents into basic types; as possible determine provisional UWP descriptions
- Identify technologically advanced inhabitation of system
- Identify provisional Mainworld;

ABORT CRITERIA

Unless specified as possible mission target or risk environment, abort upon mission confirming

- Evidence off red zone (extreme hazard) anomalies able to effect outer planetary system
- Evidence of red zone star type(extreme hazard)
- Evidence of Advance Technological inhabitation (TL 6+, extra planetary travel obvious)
- Evidence of significant and unexplainable alteration or manipulation of system
- Evidence of intrusion by foreign polity

Overall system description phase.

Once the initial system overview is completed the survey will typically proceed to an identified Mainworld or specified TOS; alternately, the survey will continue inward until either a Mainworld or TOS can be

identified and/or located. If refueling is required, this operation is the first priority of this phase, and should be accomplished at the furthest possible point from the system's star;

Typical survey equipment used in this phase will be active and passive EMS scans, as well as gravitic/densinometer scans and direct visual observation. Flyby probes and non-recoverable encounter drones may be used if deemed necessary.

Typical time can range from one to five weeks depending on system complexity and course and distance to TOS.

GOALS

Confirm Existing basic data if previously surveyed. If unsurveyed , assess:

- Identify or Confirm location of Mainworld or TOS; initial log beacon should be dropped at this point.
- Assess habitation status of Mainworld at all points
- Approach to TOS should be plotted so as to maximize survey opportunities for as many other orbital residents as possible, consistent with allowed duration of mission. For any such secondary orbital residents.
- Assess physical UWP parameters.
- Where possible or relevant, assess Biological potential of non-TOS orbit residents
- Where appropriate and/or necessary, determine provisional Biocomplexity and social UWP ratings.
- Note Planetary anomalies and/or non TOS colonies/stations

ABORT CRITERIA

Unless specified as possible mission target or risk environment, abort mission immediately upon detecting:

- Evidence of red zone TOS (extreme hazard)
- Evidence of use or deployment of Nuclear or Biological weaponry
- Evidence of extreme militarization by inhabitants
- Evidence of colonization or settlement by hostile foreign Polity

Mainworld description Phase

In general, the Mainworld description is the heart of a survey mission. This phase will involve both orbital observation, and ,where appropriate, on planet survey. A second log beacon should be dropped in orbit or at the trailing Lagrange point as appropriate.

Typical survey equipment used in this phase will be active and passive EMS scans, as well as deep scanning gravitic/densinometer sensors and direct visual observation. Extensive use of flyby probes and encounter drones is typical. Surface surveys will typically add neural activity sensors, and extensive passive motion, thermal and visual bugs, as well as handheld and vehicle mounted versions of previously noted sensors. In contact situations extensive covert observation drones will be used, as well as translators and advanced computing resources.

Typical time can range from one to twelve months depending on biosphere complexity and the existence of local inhabitants.

GOALS

- Confirm Existing basic data if previously surveyed
- Extra planetary survey sub-phase
- Confirm physical UWP, confirm Biopotential and initial biocomplexity rating
- Confirm habitation and assign initial UWP social descriptors
- Locate and assess satellites or anomalous planetary orbital residents
- Locate and assess any extra planetary settlements or artifacts in the Mainworld orbital system.
- Consider contact protocol if significant extra planetary settlements are found.
- Consider Covert survey protocol based on nature of native society.
- If surface contact is considered
- Assess detailed atmospheric composition.
- Assess biocompatibility with Standard life profiles , and general biocomplexity
- Where appropriate and/or necessary, determine technological level of inhabitants, population distribution, and militarism/ xenophobia
- If planet not obviously inhabited, assess planetary complexity and sentience probability rating.
- Apply appropriate biohazard and contact protocol with regards to any landing or intentional contact.

Surface survey sub-phase

Following distant and close orbital survey, a surface survey is often appropriate. At all times biological hazard protocol consistent with world biotype must be employed until proven unnecessary. Additionally potential unidentified sophont life must always be assessed for and considered. If a surface survey is initiated, a third log beacon should be dropped, or, alternately the second should be updated.

- Consider First Contact protocol if inhabited or if sentient life suspected. This may require a mission abort so that Contact branch can be briefed and a Contact mission established.
- Consider Covert survey protocol based on nature of native society.
- Physical landing
- Immediate assessment of biosphere and physical environmental hazard.
- Immediate assessment of environmental impact potential of extra planetary life
- Immediate assessment of inhabitant reaction and social hazard where appropriate

- Crew or Drone EVA as appropriate
- Initiate and begin Biophysical survey protocol
- Initiate and begin Sophont Contact protocol but only if previously sanctioned to do so by Contact, or if a Contact mission team forms part of the Survey team.

ABORT CRITERIA

Unless specified as possible mission target or risk environment, Abort entire mission immediately upon detecting:

- If the survey will likely result in an unsanctioned First Contact situation
- Evidence of militarisation by foreign or unknown stellar capable polities
- Unless specified as possible mission target or risk environment, abort close survey immediately upon detecting
- Evidence of nuclear or biological weapons capability by inhabitants
- Settlement or militarisation by advanced stellar society of unknown, or known hostile origin
- High probability of impact upon planetary biosphere
- High Xenophobia, Militarism or Fragility rating of space capable inhabitants
- Unless specified as possible mission target or risk environment, abort surface survey immediately upon detecting
- Use of nuclear or biological weaponry in current or recent times (4 standard years)
- Extreme biological hazard compatible with standard life profiles
- Evidence of extreme negative impact on native biosphere
- Evidence of high Xenophobia, Militarism or Fragility rating of inhabitants capable of accessing landing area.

Anomaly description and departure phase

Following the successful conclusion of the Mainworld survey phase, or a mission abort limited to Mainworld survey, a survey mission will typically assess any significant non TOS anomalies based on importance, and allowed mission duration remaining. Finally, system departure is typically made for the outer system to allow for the follow-up assessment of other orbital residents; additionally, in inhabited systems, a distant departure minimises transfer of information regarding advanced travel systems to the inhabitants.

Typical survey equipment used in this phase will be similar to appropriate phases above.

Typical time can range from one to six weeks depending on residual survey needs, and distance to planned exit point.

GOALS

 Initiate survey of non TOS anomalies deemed significant, as appropriate to standing orders and mission duration parameters.

- Update and or expand existing data as possible and consistent with exit point course and mission duration parameters. For all such survey objects,
- Assess physical UWP parameters.
- Where possible or relevant, assess Biological potential of non-TOS orbit residents
- Where appropriate and/or necessary, determine provisional Biocomplexity and social UWP ratings.
- Note Planetary anomalies and/or non TOS colonies/stations
- Before actual jump, a final Log beacon must be dropped with the full data from the survey. For any such secondary orbital residents.

ABORT CRITERIA

All previous criteria potentially apply to this phase of the mission, as appropriate to whatever additional survey activities are being carried out.

General Mission Abort Criteria

The following mission abort conditions apply at all phases of the mission $% \left({{{\left({{{{\bf{n}}_{{\rm{s}}}}} \right)}_{{\rm{s}}}}} \right)$

- Evidence of red zone conditions affecting ship (extreme hazard)
- Evidence of active militarization by hostile advanced foreign Polity
- Unexpected intrusion by or evidence of previous military intrusion by hostile advanced foreign Polity
- Initiation of hostilities by or with native inhabitants or by any advanced Polity unit, or entity
- Uncontrolled native biological activity within the ship or crew
- Infestation of any crewmember's face, body or brain by Geigeresque parasites or Lovecraftian entities.
- Contact with any entity or artifact reasonably described as "madness inducing", "fatally and soul-rendingly incomprehensible", "sanity wrecking", "amorphously squamous", or possessing or displaying extra dimensional, blasphemous or non-Euclidean qualities or powers.

TYPICAL SURVEY MISSION STRUCTURE

Every survey or exploration mission is equipped for prolonged deep space activity. The personnel can vary, but generally the personnel structure is as follows:

MISSION LEADER

Usually a Scout scientist with at least four terms of service, two in Survey or Exploration. He is also usually at Level 2 in two Science branches. The Mission Leader is responsible for each of the five phases of the survey mission and is in charge of all abort decisions. At this level, the Mission Leader is directing the mission team rather than engaging in scientific work himself, but it is not uncommon for the Mission Leader to take a lead or involve himself in particular area of expertise.

SENIOR SCIENTIST

The Senior Scientist deputises for the Mission Leader and is responsible for the co-ordination of all scientific efforts conducted as part of the mission. He is expected to know, and understand, what each scientist is doing as part of the mission's goals, and to make regular reports to the Mission Leader. The Senior Scientist generally has similar experience to the Mission Leader.

SCIENCE OFFICERS

Each survey mission usually carries a complement of the following scientists (one or two, depending on craft size), each with a minimum of Level 1 in their respective skills:

- Physical Sciences: Chemist and Physicist
- Life Sciences: Biologist, Geneticist
- Social Sciences: Archaeologist, Sophontologist (if the mission is sanctioned for First Contact)
- Space Sciences: Planetologist, Astronomer/Astrophysicist, Xenologist

Roles are often doubled-up, so a scientist with expertise (at least level 1) in two or more sciences will take on dual (or more) roles.

TECHNICIANS

The Technicians are engineering and mechanics responsible for the maintenance and calibration of all equipment associated with the mission. The Technical team is headed by a senior Technician (Engineering 2+) who answers to the Mission Leader – not the Senior Scientist. Generally the Technical team consists of the Senior Technician and two general Technicians.

SECURITY OFFICER

The Security Officer answers to the Mission Leader and is responsible for all matters relating to security, safety and risk assessment. It is his call on when a survey team should withdraw from a particular situation, although this generally requires some sanction by the mission leader.

FLIGHT CREW

The flight crew usually consists of at least two pilots, a navigator, a comms officer and an engineer. Roles may be doubled with the mission team, but sometimes discrete flight and mission teams are assigned to a particular mission. The flight crew is answerable to the Mission Leader, but where the operation and safety of the ship is concerned, then the more experienced pilot is usually designated as first officer and responsible for the direct welfare of the ship.

System Mainworld Cartography

From the viewpoint of any stellar system survey mission, there are six primary considerations for the Mainworld of a system:

- 1. Where is it relative to other planets in the system ?
- 2. How big is the 100/10d limit for the star, and is the destination inside this limit?
- 3. Where are the gas giant(s), if any ?
- 4. Where are the asteroid belts and the other planets?
- 5. Are there other important ports in system ?
- 6. Where are the other non-Gas giant planets relative to the Mainworld ?

The system presented here is designed to supplement the main World Generation rules found in the Traveller rulebook, and to enable the referee to answer the above 6 questions with a reasonable chance of the system not sounding improbable.

Definitions & Caveats:

- Orbits is a key term, and as used here simply means 'the order out from the star of an actual planet', with no other requirements or specifications.
- No attempt is made to provide actual distances within the system. Travel time between planets should be either prorated, based on general values (near world, near gas giant, and so on) made up, or based on actual distances generated with a more detailed system (the planned Worlds book for the Traveller series, for example).
- Most of the planets other than the homeworld and explicit choices by the referee should not be rolled for using this system beyond what is provided. This system is intended to locate the homeworld in relation to the non-homeworld planets, locate the belts (for space opera danger and mining campaigns) and locate the Gas Giants (for fuel).
- Finally, the system allows existing generated worlds to be positioned in systems with some degree of likelihood. It also allows the system to influence the world generation for new planets.
- The actual relationships of the orbits to each other are categorical, not continuous there are no actual distances implied or generated, just the order of planets outward from the sun.

MAINWORLD CARTOGRAPHIC SYSTEM

1. Roll the jump shadow (JS) of the star. This defines the 100d sphere in which any jump is risky. As the star is unspecified, this is a relative measurement, not absolute.

Jump Shadow (JS)=1d6 orbits.

2. Roll the number of significant planet/orbits for the star: Again, this is not intended to capture all the planets/orbital bodies; just the ones significant to play and or spaceship movement, broadly defined.

Significant planet orbits = 1d6+JS

3. Note if there are any gas giants from the standard system rules in the core Traveller rules.

4. Determine the three abstract zones for the system: Inner, Habitable, and Outer.

- Roll 2d6.
- The low dice is the number of the last Inner orbit;
- The high dice is the orbit number of the first Outer orbit.
- Any orbits between these numbers are the habitable zone.
- A tie means no planet in hab zone orbit, as does a difference of only one .

5. For each orbit , roll 2d6 testing from the star out, retain the dice as rolled

- Double 6 in any orbit indicates a significant (close) companion star in the last orbit.
- Pairs suggest a gas giant, if any exist in that orbit
- 1. In the inner system, only double 1places a Gas Giant;
- 2. In the outer system any pair, or a total > half the orbit .
- 3. Stop placing Gas Giants once all Gas Giants noted in step 3 have been placed
- 4. Unplaced Gas Giants should be added to the outside of the system in new orbits (but inside any companion start, naturally)
- If there is no Gas Giant in that orbit, there is a terrestrial, iceball or belt. Read the individual dice to describe which is present. Remember, there are no empty orbits generated by this system based on the definition of an orbit. The actual spacing is not specified
- For orbits in the inner region, read the lower dice,
- For outer region, read the high one :

1 = small rock, (roll size as 1-3)

- 2 = large rock, (roll size as 4+)
- 3 = planetoid or belt (roll size as 0-1)
- 4 = small ice, (roll size as 2-4)
- 5 = Large ice (roll size as 5+)

6 = Planetoid or belt. (roll size as 0-1)

• Once an orbit is assigned, reroll for the next orbit.

Once all orbits are assigned, move to step 6.

6. Mainworld planetary placement. The Mainworld is the planet defined in the UWP for the system.

Method I : Standard orbit.

- This is best used when the UWP has already been generated.
- Most homeworlds will be in the middle orbit of the Habitable zone, randomly chosen otherwise.
- If no Habitable zone exists, roll 1d6: on a 6 it is the moon of the first Gas Giant; otherwise it is in the last inner orbit.

Method II: Random orbit

- This is best used when the UWP has not been generated.
- Test each orbit from the last Habitable zone orbit inwards to the sun: roll 3+ on 1D6 for it to be in that orbit.
- If no inner zone or Habitable Zone world is indicated, test each orbit going outwards: 3+ on 1D6 for it to be in the orbit.
- The orbits of Gas Giants are not skipped -a roll indicating a homeworld in that orbit places it as a moon.
- If the orbit indicated is a Gas Giant or Stellar Companion, the Mainworld is a satellite of that body.

Method III: Orbit determined by the pregenerated world.

- This is best used when one has a desire for more detail, and the time to indulge it.
- Generate the homeworld. as normal. Final orbit location is determined by planet atmosphere. This will replace the rolled orbit occupant (eg large rock, etc) Read the Atmosphere code (Traveller main rules).
- Atmosphere A+ needs to be either in the last habitable zone, or an outer zone orbit:
- Start at the last habitable zone orbit, and roll outwards for each non Gas Giant orbit : 1d6 roll of 3+ places the planet.
- If it fails to place, it replaces the first Gas Giant in the Outer zone which moves to the last orbit (inside a companion)
- Atmospheres 4-9 are placed in habitable zones if available.
- Roll for each Habitable zone orbit: 3+ on 1D6 places the planet. If the orbit contains a Gas Giant, the Mainworld is a moon of the Gas Giant.
- If not in the habitable zone, the last inner zone and then the first outer zone should be checked for 1d6, with 5+ resulting in the placing
- If this fails to place, it is a moon of the first Gas Giant in the Outer zone.
- Atmospheres 0-3 can go in any orbit.
- Start in the first habitable zone orbit and test outwards, with 4+ on 1d6 resulting in a placing, up to the last habitable zone;
- Then , the last inner zone orbit and inwards; then first outer zone orbit outwards.
- If it the planet fails to place, it is a moon of the first Gas Giant in the Outer zone.
- Size 0, 1 or 2 are generally moons or planetoids in a belt.
- Initial placement is the first belt in the habitable zone, or as a moon of the first planet in the habitable zone (optionally, roll 2+ on 1D6 for each planet in the habitable zone, working outward)
- If not placed, choose the belt closest to the habitable zone. If equidistant, take the one closest to the sun. Otherwise, test each Gas Giant going outwards (3+ on 1d6) for it to be a moon.
- If still not placed, roll for each non Gas Giant orbit starting from the first (3+ on 1D6).
- If STILL unplaced, it is the satellite of any companion, or in the last inner orbit.
- If no belt, it is a moon of a planet in the habitable zone





This chapter is for those referees setting their campaigns in the Third Imperium. It includes detail on the structure of the Imperial Interstellar Scout Service (IISS) make-up and modus operandi, with a particular operational focus on the Imperial Grand Survey (IGS)

'Welcome to the Imperial Interstellar Scout Service, the most exciting and adventurous arm of the Imperial Bureaucracy, assuming you don't count the marines as part of the bureaucracy, and take into account that much of what the IISS does would be done better or certainly with better equipment by the Navy, or faster by a private firm, or more safely by robots and automated probes, and finally considering the fact that you are not in the cool Field branch of the Exploration Service, but rather the ISS (Imperial survey scouts) branch of the Survey Service of the IISS.'

Mariel Syngher, Director, IISS Recruitment

IISS ORGANOGRAM

The Imperial Interstellar Scout Service (IISS) is the organization charged with exploration on and beyond Imperial frontiers. it actually predates the empire, descending from the explorations services amalgamated by the fledgling empire. Across its many years, it has moved beyond simple exploration, adapting to the current need, and adding functions as needed. It has acquired responsibility for maintaining and updating cartography throughout the Imperium, directing basic, expanding and maintaining communications throughout the empire via the postal and courier service, and, obviously, the crucial xboat network.

Combat operations and the Scout Service

The primary goal of a scouting mission when attacked, is to run away.

Obviously, an exception to this very clearly stated rule of engagement occurs when Scouts are ordered to do otherwise. Other exceptions can occur in situations where the act of running away involves fighting, or when running away proves an impossibility.

Where combat is unavoidable, Scouts have a reputation for being dangerous in a fight. In truth, this is due to their extremely amateurish over-response to the smallest provocation as well as their extreme unpredictability caused by complete panic and lack of any preconceptions or standard tactics based on training or experience.

Accordingly, the IISS is divided into several offices, in many cases reflecting historical merges with other organizations. Currently, these are Exploration, Survey, Administration, Communications, and Operations Offices.

Administrations Office

The contains the bureaucracy that keeps the IISS functioning smoothly. Its three branches are: Personnel, Finance, and Procurement.

The Personnel Branch maintains several functions. It is primarily responsible for the service records of Scouts and ex-Scouts, for recruiting, hiring, and retirement, and for personnel transfers



IISS SCOUT SERVICE

between branches. It manages the careers of the members of the Scout Service and is in charge of co-ordinating all recalls for ex-Scout members. Within its remit is the Identification and Tracking service, which maintains a comprehensive database on all ex-Scouts and their whereabouts. When a recall is necessary, it liaises throughout the Scout service network branches to issue and effect the recall.

The Detached Duty Office was created to keep track of all retired and detached Scout personnel in order to be able to swiftly contact them and return them to active service in an emergency. In addition, the Detached Duty Office controls all surplus IISS craft (scout ships and courier vessels), making them available to some ex-Scouts if that will help the IISS in its missions, The office is divided into two branches, Records and Intelligence.

The Records Branch maintains documentation on all Scouts serving on detached duty. Virtually all former Scouts fit this classification and are subject to recall for military service or for specific missions. Normally, however, only those Scouts with surplus scout vessels on loan to them are actively monitored.

The Intelligence Branch is an information gathering agency for the Scouts. Its primary function is to debrief detached duty Scouts when they visit scout bases for refueling or maintenance on their vessels. The Intelligence Branch also maintains active agents (spies) in areas where information is vitally needed.

Finance is responsible for payroll for Scouts (salaries, pensions, bonuses, and other rewards) and payment for goods and services procured for the service. Working closely with Procurement, Finance is a highly accountable department with the Scout service, forever budget-conscience, driven by prudence, and always with a beady on eye on potential cost savings.

Procurement is responsible for purchasing the goods and services which the service requires. It establishes standards for material to be used by the service, and negotiates contracts with suppliers for material and equipment - everything from uniforms and microfilm readers to starships. As the Scout service is a large-scale procurer, it enjoys substantive discounts with major manufacturers, and access to military-grade equipment on a mission-specific basis. Procurement also monitors and tracks Scout vessels issued to retired Scouts as part of their retirement benefits and has control over when or if a vessel needs to be recalled to active duty (with or without its owner). Procurement is frugal in all its dealings, making use of all existing equipment before spending money on new kit.

Most Scouts have little direct contact with Administration and, for the most part, it is the faceless Human Resources department that either interferes with, or enhances (depending on personal point of view) the real work of the Scout service.

Exploration Office

The exploration office is the original core of the scout service, and still carries out much of its original remit. As a result of the unique demands of basic exploration, the Exploration Office utilizes the greatest variety of equipment and ships, including mobile exploration bases, frontier cruisers, and a vast array of customized, and ad hoc conversions of standards designs. Currently, the two major divisions are the Exploration Branch and the Contact and Liaison Service.

Exploration Branch

Exploration Branch is devoted to the actual exploration of space and systems, reporting and analyzing local life forms, basic planetological data, and identifying particularly dangerous areas, life forms, or hazards to navigation.

Contact and Liaison Service

Contact and Liaison service was officially added to the IISS orgchart out of a desire to professionalize contact with newly discovered populations, and reduce the then current demands of the military to provide such services. Accordingly, Contact and Liaison is responsible for both initial contact, and subsequent relations with new, non-starfaring peoples as they are found. Additionally, the C&L branch has acquired responsibility for technology transfer to new races (so as to minimize social shock and thus economic disruption), and dissemination of cultural information throughout the Imperium, with a goal to reducing the inevitable intercultural conflicts.

Often having to work closely, and in concert with most of the other offices of the IISS, in particular Exploration, but also special services, they are most likely to be cooperative and neutral as regards turf wars.

Communications Service

The communications branch deals with information and its transfer throughout the Imperium. As with exploration, there are two major divisions:

 X-boat Office This branch was created from general communications to operate the logistically intensive Express

communications to operate the logistically intensive Express communication system throughout the empire. They are the most restive service with regards to their prerogatives, ad are always agitating to be elevated to an independent Service.

They operate a fleet of specialized bases, tenders and, most obviously Xboats, as well as postal couriers to extend the system. Express service vessels do not concede any right of way, off duty or on, and particularly when flying, so be sure and yield right of way in all situations. X-Boat service is renowned for its excellent quality legal and military grade stimulants and sedatives.

Imperial Courier Branch (Communications) was the original core of ComServ, and has never adapted well to the coequal splitting off of the xboat system. The ICS maintains ad hoc minor postal routes, and transports items that cannot be sent through the X-Boat system and transport of crucial or important personnel. This sections assets and attitudes are generally similar to the xboat network, but add impatient and/or self-important Imperial dignitaries and military officers.

Rhylenor Taoiseach

A covert paramilitary intelligence unit established from local scouts and military commandos by Admiral Olav Haut-Plankwell during his tenure as a frontier commander, it accompanied was retained by him following his seizure of the throne, and survived the ensuing civil war period

As a highly independent imperial level troubleshooter force, tasked to proactively identify and neutralize potential threats to the Empire's security. Generally camouflaged as a kind of a harmless traveling think-talk and information service, the Taoiseach preformed this service for several hundred years, with strategy and control vested solely in the Emperor. In later years, it seems to have been involved more in palace power struggles and political maneuvering; reported irregularities in its involvement in at least one questionable imperial death, and its subsequent loss of cover led to its eventual disbandment in 907; curiously, its charter and basic public information group remains current, and provides interesting if generally banal summaries of news and cultural and technological trends throughout the empire. Rumors that the commando functions still exist as a clandestine part of the organization are of course, unfounded and absurd.

TECHNICAL **S**ERVICES

This office is responsible for scientific and technical activity within the service. It is divided into the Education Branch and the Research & Development Branch. Education Branch provides information and data to offices, branches, and individual Scouts who need it. It maintains education and intelligence enhancement courses and treatments necessary for individuals to accomplish their missions. It is responsible for the development and dissemination of library data programs for Scout Service vessels. In addition, the Education Branch maintains and administers standards for skills learned In the Service, and provides educational courses to Scouts in order to fill their time when on duty or on long voyages. Research & Development Branch is responsible for scientific inquiry into data obtained by the Scout Service, and is responsible for the development of equipment needed by the Service to accomplish its mission. The R&D Branch is also responsible for the design of specialized scout vessels used by the IISS. It is forced, naturally enough, to work with the Finance and Procurement branches of Administration, and is a significant consumer of the IISS budget. However its work is also sold, on a contractual basis, to various arms of the military and approved partner contractors, thus helping to mitigate its substantial costs.

The Survey Office

The Survey office was originally an independent imperial organization known as the Imperial Grand Survey. The eventual absorption and subordination of the IGS by the IISS was the result of a long administrative struggle, which the IGS lost. The survey office is still generally referred to by its original tile, both internally and to the general populace. The final division of responsibilities and authority with the exploration Service gave the IGS control of exploration and mapping within the defined borders of the imperium. In addition to survey duties the IGS is responsible for disseminating its cartographic information, as well as regulating and maintaining established shipping traffic, and maintaining and enforcing the safety and training requirements for starships within the empire. IGS personnel often work closely with the Starport authority to maintain traffic and jump zones, and generally regulate transportation flow. They are also responsible for continuing exploration within the Imperial boundaries, but this is generally underfunded and supplied, receiving only a small proportion of the IGS budget. Administratively, all cartographic functions are retained within the main branch of the IGS, with other ad hoc units being created as need to meet various demands, and to absorb new functions as necessary. The most important of these units are noted below.

Pathfinder Branch

Historically, the pathfinder service was created to deal with a cartographic/administrative oddity: the fact that many poorly explored or occasionally uncontacted areas are technically within the Imperial borders (such as the Outrim Void) As a result, exploration and survey in these areas are the responsibility of the IGS rather than the rival Exploration Office. Accordingly, to carry out this mandate (and to prevent erosion/transfer of headcount, mission, and funding to the Exploration branch) the IGS maintains a very small and grudgingly-funded clone of the Exploration branch known as the IGS-Pathfinders, also known (confusingly) as the Imperial Survey Scouts (ISS), and generally referred to by the rest of the IISS as "External Mapping Service". In addition to exploration and contact, the duties of the ISS are often extended/augmented to cover courier and postal support duties, local search and rescue operations, dealing with mail and trade piracy (and commerce raiding), anti smuggling, border patrol and customs enforcement duties as well as the more traditional scout tasks of survey, contact and navigational infrastructure support and maintenance. Units and resources of the ISS are also not uncommonly loaned out to other frontier/colonial departments (also operating on a shoestring budget), generally in exchange for budgetary transfers or political considerations, but also for lack of any other resources.

OTHER IMPORTANT UNITS OF THE IGS

Beacon Branch

A smaller subgroup within the IGS, specializing in maintaining and deploying navigational aids and beacons; and maintaining nonmilitary aspects of red and amber zones.

Rescue and Emergency Department

Within the empire, the scout service maintains a dedicated rescue service in many systems that are unable to provide it otherwise, although in some cases they are specifically contracted by the local authorities. The RED provides such services as needed. Generally the RED assets are non-jump based ships, modified for rapid response and emergency medical intervention. As a rule all such vessels are unarmed and marked with the local or Imperial script

IISS SCOUT SERVICE

for GK (see below). The ships transponder broadcasts a continuous location signal, and an emergency identifier that requires all ships to surrender priority in flight paths and landings.

Typical ships are modified Modular cutters, with a specialized rescue module, upgraded M drive, and sophisticated passive sensors. Modified type S ships are also used, some retaining jump capacity for rapid redeployment. Refuge and survival stations are also stationed in systems, typically at crucial locations such as gas giants or wilderness planets typically used for fuel scooping. The Imperial laws of navigation, and a series of treaties with independent polities requires any ship to respond to, and give assistance to distress calls where possible and without risking life and limb to do so. The typical distress signals are quite ancient, and include the original Vilani signal GK (Gashimeku Kaalariin, Vilani for vessel in distress), the Terran SOS, or Mayday signals, and the Zhodani DCQ (best translated as Distress: Dome Quickly). Note that the 732 Samaritan Treaty of Jewell specifies that in peacetime, Zhodani and Imperial ships (and allied clients) may enter each others territory to respond to such calls. It is also important to note that misuse of such signals is regarded as a crime against the Emperor in the imperium, enforcement of which specifically transcends internal and local legal jurisdictions.

Note on Imperial Cartography

The IGS designed the Imperial system of mapping, specifically the familiar Subsector/Sector/Quadrant organization. The system is adopted from the original Viilani cartography, and significantly predates the actual imperium. It is somewhat archaic, and more appropriate for a smaller polity, but as it uses very traditional and rigid design it avoids continual revision from political jockeying and short-term issues. It is only altered by changes in observational, and practical data, and maintained unswervingly by the IGS. It is extremely centric to the Imperium, but because of its apolitical design, has been adopted by most other local polities, even those traditionally opposed to imperial culture.

Directional plots are relative to the planet Reference, the Galactic core, and galactic rotation. The standard directions are Coreward, Rimward, Spinward and Trailing. Directions above or below the galactic plane are noted as a positive or negative azimuth value. Galactic North and South are unofficial designations used by media and the general public. The north/south distinction is used unofficially by most scouts in the field, though, as "Pirates of the galaxies southern galactic main " sounds better than "Pirates of Spinward Az -324.5", and.

Imperial cartography is based on a grid overlaying the observational data of space without regard to number of systems or political boundaries thereby enclosed, and are thus of a constant size, organized into sectors and subsectors. Sectors are named grids of 16 named subsectors, each of 8x10 parsecs. On the average sectors contain 500 to 700 systems, and subsectors generally contain some 30-50 systems, varying dramatically in rift or cluster locales. Subsectors are

noted by the sector name, and the characters A to P (omitting I and o). Individual systems are noted by sector, subsector and grid coordinate within the grid of the subsector. Names of Subsectors and planets are changeable, and in fact often do so, but basic notation is consistent across time and political boundaries.

Quadrants and Octants are semi-official charting designations comprising (respectively) four and two subsectors, used by trade and popular media and the names given often vary from the standard subsectors defined in the IGS Precise Ephemeris. It is suggested that the name be the lowest lettered sector or partial sector enclosed by the chart.

Navigational calculation uses a detailed coordinate system overlapping the cartographic grid, using entirely mathematical referents relative to Reference and the Galactic Core.

The Imperium comprises 27 sectors; the Zhodani Consulate, 13; the Aslan Hierate at least 13 (depending on the trans-rift areas); the Hiver Federation 13; The Two Thousand Worlds claim 14; and the Solomanii Confederation, 11 (although it claims approximately 15). The Vargr extents geographically cover 14 sectors, but Vargr systems and enclaves are found throughout Coreward and Spinward sectors.

Interdiction

Interdiction of worlds within the Imperium generally occurs at the request of a major department of the government, and must be approved by the throne. In practice, almost all interdictions are proposed by the scout service or the military. The practice is somewhat controversial, as the re are no specific qualifications for such interdiction, save that of pressing and significant need. Typically, the scout service interdictions are based on considerations of indigenous culture s, or on sensitive or intense research activity, or the possibility of extreme hazard from natural or unexplained situations. Military interdictions are typically to quarantine hostile and or politically dangerous worlds, or worlds that present a natural threat to the Imperium, such as disease. Crucial military resources are also interdicted by military request, as well as sensitive military research and testing sites. Finally, interdiction is also used by military and occasionally diplomatic services to punish a given system.

In general, scout interdiction is appropriate to situations requiring a quarantine or inclusionary Cordon Sanitare; military intervention to situations requiring an exclusionary blockade. Interdicted worlds automatically are given red travel ratings by the traveller's aid society, although not all red zones are interdicted worlds.

Operations Office

Responsible for the activities of the Service in the establishment, maintenance, and operation of its bases and fleets. It is divided into Maintenance, Security, Bases, and Scout Fleet branches. The Maintenance Branch is charged with preventive maintenance of the equipment used by the Scout Service and with repairs as necessary. Maintenance is capable of repairing many Imperial Navy vessels as well. The Security Branch is charged with providing security and law enforcement for the Scout Service. Security Branch Scouts serve as police enforcers on Scout property, as commandos or shipboard light troops, for special Scout activities, and as clandestine agents for Intelligence Branch. Agents of the IISS Security Branch have great authority to arrest, detain, or question individuals suspected of violations of Imperial law, and can demand cooperation from local authorities as the need arises. The Base Branch is responsible for the operation of the Scout Service's bases, way stations, and other establishments. The Scout Fleet consists of all of the vessels used by the Scout Service. Because the operation of space vessels requires a great deal of supervision, training, and control, the Scout Fleet is organized similar to a naval unit. Vessels used in the Field (for exploration or communications, for example) belong to the Scout Fleet, even if operated by individuals not specifically assigned to that office. The Scout Fleet supports the Communications Office and Exploration Office activities, and provides ships (as well as some personnel to crew them to those offices.

INSTALLATIONS AND FACILITIES

Scout bases

The Scout Service maintains a variety of scout bases both within and outside the Imperium, generally worlds with starports type C or D and typically in systems more out of the way than are naval bases. Scout bases are surface installations with basic fuelling and minor maintenance activities oriented toward ships of 1,000 tons or less.

The scout bases maintain explorations hips, logistic support for distant on planet operations, and provide dispatch and services connecting the xboat system with more remote worlds. Scout bases also have other responsibilities, including administrative responsibility for scouting operations locally. Typically, where multiple bases share a subsector, bases will typically specialize in function within the subsector, such as cartography, technical research and support, and contact or liaison activities. A scout base is more extensive than an xboat station, but less comprehensive than a way station.

X-Boat Station

The express boat network maintains small installations along the route for service and dispatch of Xboats, as well as transmission and routing. Such stations are generally located at the edge of a system, and always support one or more Xboat tenders, as well as providing extensive storage, signal analysis, route scheduling, and often highly automated retransmission facilities. Incoming Xboats immediately transmit their data to the local station and await pickup. The local system splits off and retransmits data continuing along the network to a waiting xboat on the appropriate line. Local traffic can be either for the local system, or for transmission to non-Xboat couriers (typically, but not exclusively a Type S), which connect the network with more distant planets.

Stations also maintain one or more offices on the mainworld, to accept and deliver messages. There will always be one such office at any class C or better starport, Scout or Naval base. Scout and Naval offices are not always available for public use.

The xboat system is highly encrypted and secure, and all communications are completely confidential; however, the xboat network will only accept unencrypted messages from the public for retransmission. All further security and encryption is carried out by the network, and cleared before pickup.

Way Station

Way stations are the main maintenance and support nodes for the Xboat network. Where several lines coverage, the analysis and transmission resources will be correspondingly increase. Otherwise, a way station is essentially a standard station with extensive refit and overhaul facilities for Xboats, couriers and tenders. One can model the entire Xboat system as a distributed torrent network, with an immense packet size (the Xboats data load), but a minimum latency of 1 week. Xboats in particular regularly make multiple jumps with minimum delay, occasionally changing pilots, but always working up and down the xboat lines as quickly as possible. As a result, they require reliable and frequent maintenance, and the tenders and couriers are only marginally less busy. Typically, an xboat will be pulled for service (and immediately replaced every one –three waystations (depending on separation). Waystations stock significant stores of scout related equipment and parts, provisions, and spare crews, as well as recreation and relaxation facilities. Their maintenance capacity and installations are similar to naval bases, with a general upper limit of 10,000 tons or less.



As part of their service routine, especially in the Survey and Exploration branches, Scouts are regularly faced with hostile environments that requires a thorough understanding of survival techniques.

Although excellent equipment counts for much, there is no substitute for knowing the basic lessons of survival. Any character trained to Survival level o knows these basics; further skill levels reflect extensive training and experience in survival situations.

The chapter covers those survival basics and examines the survival methods necessary for a number of key environments.

The Psychology of Survival

EQUIPMENT

Relying on first-rate equipment is insufficient for survival. Equipment can fail, and nature can regularly produce unexpected conditions which challenge and defeat the tolerances of even the best equipment. The first psychological lesson for all Scouts is therefore not to place complete and unconditional reliance on any one piece of equipment – be it a ship, vessel, or vacc suit. Of course, in some environments – vacuum for instance – the failure of a vital piece of equipment can mean death. For this reason, the psychology to be applied to all equipment is:

- Maintenance regular, thorough, challenging.
- Check for Safety not once, not twice, but three times. Test all systems and all potential points of failure.
- Back-Up back-up as in data storage, and back-up as in carry a spare if possible, or essential spare components.
- Understand its use make sure you are fully familiar with how to use your equipment properly and effectively. Incidents arise as much through improper use as they do through external circumstances.
- Practice emergency drills evacuation procedures, fire-fighting procedures and life-support isolation/restore procedures. These are essential.

In game terms, characters need to be competent (level o) in the skill that the equipment falls under, in order to run full safety and maintenance checks, as outlined above. The roll to make is 8+ using the relevant skill with any DMs the referee might want to impose due to various constraints:

Safety Assessment DMs	DM
Equipment has undergone recent safety and maintenance testing	+2
Equipment has been neglected for some time	-2
Equipment is checked in haste	-1
Equipment is old or obsolete	-1

If the assessment check succeeds, then the character has either spotted any possible problems, or the equipment is in good working order. If flaws exist, and are spotted, the only constraint on implementing a remedy is time and available resources.

In terms of safety drills, such as evacuation procedures, then characters need to roll Int 8+, with a DM equal to the Survival skill level. If the roll fails, then the character is deemed to have forgotten a vital part of the procedure, resulting in lost time or encountering other hazards. These need to be adjudicated on a situation by situation basis, and according to the severity of the circumstances. If the character is operating in a regime where regular drills are the norm, he gains a +1 DM to the roll. If regular drills are neglected, then the DM is -1



Basic Survival Psychology

'The art of survival is the refusal to give up.'

Scout saying

Living through a survival situation takes more than equipment, training and expertise. Some people with little or no survival training manage to survive life-threatening circumstances; some with survival training fail to use their skills and die as a result. A major component to survive a situation is the mental attitude of the those involved: the psychology of survival.

Having survival skills is important, but having the will to survive is essential. There is a psychology to survival. A Scout in a survival environment faces many stresses that ultimately impact on his mind. These stresses can produce thoughts and emotions that, if poorly understood, transform a confident, well-trained operative into an indecisive, ineffective mess with questionable ability to survive. It is therefore essential for every Scout to be aware of and be able to recognise those stresses commonly associated with survival, and both act and think accordingly.

It is also essential for characters to be aware of their reactions to the wide variety of stresses associated with survival.

STRESS

Stress is a condition every character experiences and can be best defined as the reaction to pressure. Despite the negative connotations, stress has positive benefits:

- Stress provides challenges and therefore opportunities to learn about strengths and capabilities.
- Stress tests adaptability and flexibility, stimulating us to do our best. Because unimportant events are not considered stressful, stress is an excellent indicator of the significance attached to an event: in other words, it highlights what is important.

Any game event has the potential to become stressful, but routine, mundane events rarely do. Stress occurs for characters when unforeseen or uncontrollable circumstances challenge the character's perceptions and abilities – and these take a wide variety of forms. Even training in particular endeavours, such as combat, does not necessarily mitigate stress but it does help to cope with its effects.

As an optional rule, the effects of stress (which always come into play at the referee's discretion) are handled thus.

The referee assesses the Stress Level. This should range from 8 to 12 (or higher) and reflect the situation. Immediate, rapid, life-threatening situations should rank as SL 12; things that are foreseeable and can be countered to some degree should rank as 8 or 9.

Characters roll 2D+Endurance against the Stress Level. Characters gain a positive DM for each level of Survival.

If the roll succeeds, the character remains rational, calm and level headed, taking no penalties to further skills. If the roll fails, the character suffers DMs equivalent to the Effect of the failure to all skills until the threat creating the stress has been resolved and the character has the chance to relax. In addition, characters suffering from the effects of stress undergo one (or more) of the following personality/psychological changes for the duration of the stressful period:

- Difficulty making decisions.
- Angry outbursts.
- Forgetfulness.
- Thoughts about death or suicide.
- Trouble getting along with others.
- Withdrawing from others.
- Hiding from responsibilities.
- Careless
- Apportions blame inappropriately and disproportionately.

Example: Surveying a planet with a highly turbulent atmosphere, Variss's scout ship undergoes an avionics failure and the ship goes into a high-velocity nosedive. The referee sets the Stress Level at 11. Variss has End 8 (+0) and Survival 1. He needs to roll 10 or more to remain calm.

Variss rolls 4, adjusted to 5 for his Survival. His effect is -3 (5-8), so all skills until the nosedive can be corrected will be at a -3DM. Luckily, Variss is not the ship's pilot, and the pilot does manage to bring the ship out of its dive and onto an even flight path. However this takes several minutes and, during this time, Variss rages angrily about him, blaming the navigator and pilot for a situation that was clearly beyond their control...

Assessing the Situation

Every survival situation requires a clear, logical assessment of the circumstances: both the local conditions, and the short, medium and long-term factors. The things to be considered are:

- Where am I?
- What is my physical condition?
- Am I mobile?
- Am I alone?
- Do I need medical attention?
- If injured, what do my injuries prevent me from doing?
- Do I have the means to communicate (with others and wider afield)?
- Is habitation nearby, and can I reach it?
- Are the local inhabitants friendly, neutral or hostile?
- What are my immediate resources (water, food and shelter, primarily, in the forms of locally available resources, personal equipment and rations designed for survival purposes, resources that can be improvised)?

- Have I the means to alert others to my condition?
- What are the environmental conditions? How can these change and how quickly?
- What is the atmosphere type? Can I breathe unaided? If I must rely on a vacc or environment suit, what condition is it in and what are my oxygen reserves?
- How much time do I have before death becomes a likelihood? What can be reasonably accomplished in this time?

The answers to these questions allow for the formation of a Survival Strategy; prioritising what can be done, assessing and mitigating controllable risks, establishing a communication plan, and then how best to deploy the resources one has available, whatever they might be.

Referees can use the checklist of conditions to guide stranded characters through the essentials of survival. If the character has the Survival skill at o or better, then a successful 8+ roll indicates that the checklist is run-through and the character gains all available

information to assemble his Survival Strategy. The strategy itself can be abstracted or played-through, element by element (using the checklist above as the flow for the actions), with other members of the group being assigned specific questions to answer in order to advance the strategy and arrive at answers.

Each of the elements in the checklist might carry their own Stress Level, or a single Stress Level might be applied to the whole checklist, depending on the level of detail needed for the situation. If multiple stresses are used, then every failure to cope is cumulative: it is therefore possible for characters to become, literally, paralysed by fear and panic as the stress of the situation overwhelms them.

Some answers to the checklist questions will be clear-cut; others will be more complicated to answer or are unanswerable. All available answers depend on the local conditions. Individual skills and skill rolls will provide some answers, but others will clearly require investigation. A list of skills and how they can be used in assembling and managing the Survival Strategy is as follows:

Skill	Use
Comms	Checking the status of communications equipment, establishing communications with others, establishing distress signals or alerts.
Computers	If computer equipment is available, checking for information on local conditions, course-plotting, establishing communications. Much depends on connectivity.
Deception	Improvising disguises and camouflage, hiding the remains of wreckage.
Engineer (electronics, life support), Mechanic	Checking equipment status, understanding how salvageable or available life support systems from vehicles can be optimised for use in the conditions.
Investigate	Assessing specifics of local circumstances. Finding clues relating to the environment and inhabitants.
Leadership	Each level of Leadership can be used to reduce the Stress Level by 1. Successful Leadership rolls help inspire and motivate others in managing the Survival Strategy
Medic	First aid, and keeping wounds free from infection. Includes improvising splints, bandages, dressings and so forth.
Persuade	Where characters are clearly affected by stress, Persuade can be used to gain their co-operation and positive action. Can also be used to persuade local populace to assist, even if hostile.
Recon	Gain an overview of local conditions: terrain, weather type, likely hazards or obstacles, enemy positions, and so forth.
Remote Operations	If remote support is available, and the remote ops equipment is working and available, then Remote Ops can be used to signal or remotely invoke a variety of communications or rescue plans already established or programmed into ship/vehicle systems.
Science (various branches)	Establish the specifics of the environment and likely impacts on survival to an accurate degree rather than in general terms.
Seafarer	If the survival situation is at sea, then this skill can be substituted for the Survival skill. Even if not, Seafarers understand a variety of environmental hazards and can use this skill to assess things such as wind direction and chill, star navigation possibilities, and so forth.
Survival	Implementing the basics of the Survival Strategy and completing the kinds of actions listed on page 58 of the Traveller rules.
Tactics	Prioritising and executing each component of the Survival Strategy effectively. Every two levels of Tactics can be used to reduce the Stress Level by 1.
Vacc Suit (and Battledress)	Establishing Vacc Suit reserves, effecting repairs, and optimising Vacc Suit systems for optimum performance
Zero G	Moving effectively in low gravity or zero g. If the situation is in such an environment, then every two levels of Zero G can be used to reduce the Stress Level by 1.

SURVIVAL NECESSITIES

Assuming that the survival location is planetside, the survival necessities are as follows:

- 1. Food
- 2. Water
- 3. Shelter
- 4. Fire
- 5. First aid
- 6. Signals

The order of importance varies, depending on conditions. For example, if characters are injured, first aid has top priority no matter what the climate.

If the survival situation is a cold climate, fire and shelter come first, whereas, in an arid environment, characters will first need think about water, locating it, preserving it, and protection from the heat. Once these priorities are attended to and stabilised, then signals can be examined – everything from communications equipment/ distress beacons, through to creating air-visible SOS signs close to the survival camp.

Water

Water is essential to the human metabolism for survival; more so than food. The body can exist for longer without food than it can without hydration. However, thirst is not a reliable guide for water needs. Characters using thirst as a guide will drink only two-thirds of their daily water requirement. The basic rule of thumb for water requirements are:

- At temperatures below 38 degrees C, 0.5 litres of water every hour.
- At temperatures above 38 degrees C, 1 litre of water every hour.

Drinking water at regular intervals helps the body remain cool and decreases sweating. Even when the water supply is low, sipping water constantly keeps the body cooler and reduces water loss through sweating.

Characters who are able to drink enough water (according to the rule of thumb above), and conserve energy through limiting physical activity to the essentials, suffer no undue effects. However, if the requisite amount of water cannot be consumed every hour, a character begins to suffer. Roll End 8+, with the following modifiers:

Only half or less of requisite water requirement was consumed in the previous hour: -1DM No water consumed in the previous hour: -2DM Food eaten in the previous hour: -1DM

DMs are cumulative. If the End 8+ roll fails, then 1d3 points of damage are assigned to either Strength, Dexterity or Endurance,



determined randomly. This simulates the effects of dehydration, resulting in fatigue, cramp, lethargy and diminishing energy levels.

Referees should call for Endurance rolls as appropriate, and depending on conditions (heat, water availability, physical effort expended, and so forth).

Note that food requires water for digestion. It is better to forgo eating and drink water (or eat very small amounts) rather than to eat and drink little water.

WATER QUALITY AND TESTING

Local sources of water depend on planetary type, but it is not an uncommon compound, existing in the form of water vapour, ice, snow and surface water sources such as rivers, lakes and oceans. Salt water can be purified using either a water purification unit (TLs 4+) or through separating the salt through evaporation. The process is not difficult, given basic equipment, and can be accomplished through either a successful Science (physics or chemistry) roll at 7+.

Water testing kits, including purification tablets, form a basic part of the standard Scout Survival Kit (see page 105), which indicates the suitability for drinking. The HandPacs issued to Scouts include a water testing sensor and read-out to indicate trace minerals and toxins.

In arid environments water is most frequently present below the surface in aquifers. Detecting an aquifer can be done using a sensor package and the Sensors skill, or Survival through observing local plant-life or signs of surface moisture. Reaching an aquifer depends on its depth below the surface layer: plants with deep roots and water storage can be used as a proxy method of getting to water, but otherwise a borehole needs to be sunk down to the aquifer itself and requires both drilling equipment and an Engineering or Mechanics roll.

One difficulty with water found in arid environments is its mineral content (borax, salt, alkali, and lime, for example) which makes the water undrinkable unless treated. Even wetting clothing in untreated high-mineral content water (to provide relief from the sun or heat, for instance) can pose a hazard as the minerals can irritate the skin and bring infection to any open wounds. Make an Endurance 7+ roll (9+ if an open wound is present) for using untreated water in this way; if the roll fails, a point of damage is sustained to either Strength, Dexterity or Endurance, representing the discomfort of the irritation and exacerbation of infection.

In cold environments, water availability is less of a problem because it is likely to be present as snow or ice. Salt ice is a dull grey in colour, whilst fresh water ice is bluish in colour. Ice melts more quickly than snow, but either is a ready water source.

Food

The availability of food is always dependent on local conditions.

Arid and cold environments are likely to be almost devoid of vegetation, and animal life that can be hunted may also be scarce. Jungle and temperate environments are likely to offer far less problematic in terms of foraging, but have the added complication that many plants are hazardous or offer little nutritional value. And, on an alien world, where plant and animal life will be either highly or completely unfamiliar, without being able to run full chemical analysis on a potential food sample, there is no way of being sure that either vegetable matter or animal protein is not hazardous.

The referee has to be the arbiter in these decisions, deciding if something character can forage or hunt is going to injure them – or offer the fuel required to assist with survival. If characters have access to ship or vehicle rations, or high-tech food synthesisers and testing kit, then the problems are reduced but referees need to decide what foods are available and what harm they might do.

The Survival skill covers foraging – finding edible items in the wild – and, to a limited extent, identifying what may or may not be harmful. At Level 0 characters are able to identify known toxic plants and herbs native to their homeworld. At Level 1, they can make an educated guess at the likelihood of harm on a roll of 8+. At Level 2 and above, they can deduce the probability of harm from unknown species but cannot guarantee their deductions without detailed sample analysis.

HUNGER AND STARVATION

Food is essential to fuel the body. Without it, the body feeds upon itself, breaking down muscle and organ tissue to provide itself with fuel: this is starvation.

Humans can survive on little or no food for 1+1d3+Endurance DM weeks before starvation begins to take effect. Starvation results in many complications, but the most common physical complications are:

 ${\sf Dehydration}-{\sf hence}$ the importance of water in the diet, and at regular intervals

Pain – as muscle tissue is broken down for sustenance Lethargy – as fat reserves are consumed for energy

Weight loss is inevitable, as is a decrease in willpower, accompanied by hysteria, hallucination, depression and paranoia.

Starving characters suffer 1D6 points of damage per week. This damage is apportioned equally across all three characteristics (Str, Dex and End) with any odd points of damage being applied randomly. This damage can be mitigated on a roll of Survival+End, but the target number for the roll increases by one for each week after the starvation point has been reached.

For example, Variss, with an End of 8, can survive for $1+1d_{3}+0$ weeks without sufficient food. The 1d₃ roll is a 3, so he can survive for 4 weeks. At the end of week 4 he must roll Survival+End 8+ to avoid sustaining 1D6 points of damage. At the end of week 5, he must roll Survival 9+; at the end of week 6, 10+, and so on.

Both physical and psychological effects need to be adjudicated by the referee as appropriate, and taking into account other factors such as the climate, injury, stress and so forth. Starvation can be either a slow or a rapid killer, depending on contributing circumstances.

Shelter

Shelter is both physically and psychologically necessary to survival. A good shelter protects against the elements and offers a feeling of safety that can mitigate the effects of stress.

Where it is necessary to improvise, Scouts are taught to use whatever natural materials are available to construct a shelter, and Survival at Level 1 indicates that the character is practiced in finding suitable components to build a basic shelter that will offer modest protection from the elements. Additional skills, such as Mechanics and Engineering, can also be used to construct a more robust shelter. Whatever the skill used, calculate the Effect, using its value as an indication of the strength and sturdiness of the shelter (the higher the better).



Effect	Shelter						
-3 or less	Very flimsy. Offers shade and a certain psychological comfort, but is easily demolished in adverse conditions						
-2	Flimsy. Leaks, draughty, but will hold-up for a few days.						
-1	Weak, but will hold-up for 3+1d3 days						
0	Stable. Offers modest comfort and protection						
1	Decent. Dry, relatively warm and draught free						
2	Good. Will weather adverse conditions and keep the occupants warm and dry						
3+	Sturdy. Will support a relative level of comfort for several weeks, if not months.						

DMs are gained for equipment and resources appropriate to the shelter being built. For example, building an igloo obviously requires snow, but having an ice-axe to cut blocks of compacted snow gains a DM of +1; have just one's hands gains a DM of -1.

Having a Weak, Flimsy or Very Flimsy shelter adds +1 to any prevailing Stress Level situation. Having a Decent, Good or Sturdy shelter lowers it by 1.

Exposure

If shelter is not available and characters are exposed to the elements for any duration (End characteristic in hours), then exposure, in the form of hypothermia, sets in. Hypothermia is the reduction of the body's operating temperature, and it does not require a large drop in temperature for hypothermia to have a profound effect.

Once hypothermia takes hold, the only cure is to gradually warm the body again, through a steady and gentle application of heat through blankets, warm drinks and shelter. Hypothermia occurs in stages:

Stage 1

Body temperature drops by 1-2°C below normal temperature (35-36°C). Mild to strong shivering occurs. The victim is unable to perform complex tasks with the hands as they become numb. Breathing becomes quick and shallow. Goose bumps form, raising body hair on end in an attempt to create an insulating layer of air around the body (which is of limited use in humans due to lack of sufficient hair, but useful in other species). Often, a person will experience a warm sensation, as if they have recovered, but they are in fact heading into Stage 2.

Stage 2

Body temperature drops by 2-4°C. Shivering becomes more violent. Muscle mis-coordination becomes apparent. Movements are slow and laboured, accompanied by a stumbling pace and mild confusion, although the victim may *appear* alert. The victim becomes pale. Lips, ears, fingers and toes may become blue.

Stage 3

Body temperature drops below approximately 32c. Shivering usually stops. The character has difficulty speaking, sluggish thinking, and amnesia starts to appear; inability to use hands and stumbling is also present. Below 30c, the exposed skin becomes blue and puffy, muscle coordination becomes very poor, walking becomes almost impossible, and the victim exhibits incoherent/irrational Major organs fail and clinical death occurs – although, because of decreased cellular activity, the body will actually take longer to undergo brain death.

The referee needs to determine the movement through each stage, depending on the local conditions. However, without warmth or shelter, the degeneration can be rapid with no more than a few hours between each stage.

Characters suffering from Stage 1 hypothermia halve their physical attributes. All physical skills suffer a -1DM in addition to any negative DMs from the reduction of physical characteristics. If warmth is not applied within $1+1d_3$ hours, Stage 2 results.

Characters suffering from Stage 2 hypothermia reduce all physical characteristics to 1. If warmth and shelter cannot be found within 1+1d2 hours, then Stage 3 results.

In Stage 3, the character is unable to move and death will result within 1d3 hours unless both medical treatment and warmth/shelter can be found.

Fire

A source of heat is essential to survival, both for keeping the body warm and for preparing food. The Survival skill is used to forage for materials that will sustain a reasonable fire, and to get it going using a variety of natural methods (assuming mechanical means of starting a fire are unavailable).

Once lit, a fire will burn for as long as it is fed and tended. Without care, and shelter from the wind (a bigger threat than rain), it will go out. Having a fire present reduces any prevailing Stress Level by 1 and will help stave-off the effects of hypothermia. When building a fire, have the character make a Survival throw. The Effect of the roll is the fire's quality, and its quality increases the number of hours between the stages of hypothermia. If characters are in danger of suffering from hypothermia at stage 1, but it has not yet taken hold, a fire of quality/effect 2 will prevent it from taking effect, as long as the fire is maintained and characters remain in its vicinity.

If a fire is not properly attended by either Survival or Int (8+) rolls every 3 hours, reduce its effect by 1. If it reaches an effect of -1, then it has gone out. Successful rolls either increase the effect or keep it at an established effect for the next 3 hours.

First Aid

First Aid relies on the Medic skill and available medical resources, such as a first aid kit, or other items that can be improvised – such as redundant clothing or cloth for use as bandages, dressings and slings. The Medic skill covers such improvisation, as long as materials are available.

A successful Medic roll will clean and dress a wound sufficiently to prevent infection. However, in the wild, infection is a constant problem due to the natural environment and a lowering of the immune response to stress and other conditions, such as hypothermia. Wounds susceptible to infection must be checked every 8 hours and a further Medic roll made to redress/re-clean the wound. Apply a DM of -1 if essentials such as fresh dressings and clean water are not available, with all DMs being cumulative.

If a wound is not kept clean and infection free through the successful application of the Medic skill, infection occurs if an Endurance 8+ roll is failed by the victim. Infection increases any damage suffered through other means (starvation or hypothermia, for instance) by a further 1d3 points every four hours. Once infection sets-in, hospital facilities or dedicated drugs are the only way of controlling and eliminating it – even if other forms of damage are eradicated.

Signals

Forms of signalling and many and varied, and rely on resources, available equipment and ingenuity. Both the Comms and Survival

skills can be applied to signalling efforts, but all such efforts are going to be hugely dependent on others being able to see, and respond to, the signalling efforts made.

SURVIVAL KITS

Every service issues personnel with a survival kit as part of a standard inventory for use in potentially hostile/survival situations. The components vary according to the conditions anticipated, but some basics are common to all survival kits.

Basic Survival Kit

Available at TL6 and above, the basic survival kit contains the items below. It weights 200 grams and comes in a container of either light metal/impact-resistant plastic with dimensions of $11 \times 8 \times 3$ cm

- Water resistant container (can double as a water carrier/eating container)
- Vinyl tape (1 roll, 20m)
- Button compass
- Knife
- Matches (wind resistant, plus striker)
- Pencil
- Water Purification tablets
- Snare wire
- Candle
- Flint & striker
- Hacksaw blade
- Fishing kit (10m of nylon line, plus 20 assorted hooks and small floats)
- Whistle
- Sewing kit (10 needles, strong cotton thread)
- Safety pins (10, assorted sizes)
- Wire saw (finger looped)
- Signal mirror
- Tin hanging handle
- Tinder
- Water bags (10, on a roll)
- Single edged razors (5)
- Adhesive plasters (20, assorted sizes)

Advanced Survival Kit

Available at TL7+, the advanced survival kit includes all the above, plus the following items. It comes in a small, water resistant pouch $30 \times 20 \times 10$ cm.

- 4 x Signal flares + launcher/flare gun
- 3 x Positional beacons (capable of being sensed by any ship/ vehicle mounted sensor package), battery operated with life of 1000 hours.
- Handheld electronic water tester kit (basic readout on water quality/trace elements)
- Battery/wind-up flashlight
- 2 x thermal survival blankets (2m x 2m, sealed in water-resistant

plastic sheath)

- Survival/hunting knife
- Medical glue
- Gas lighter
- Gas stove (liquid gas canister, 50 hours life)
- Nutrient pouches (20 x sachets of powdered essential salts, etc, that can be made into a broth)
- Synthetic Skin (TL12)
- Shelter Cube (TL13)

Medical Survival Kit

Issued to medical personnel, and available at TL 6+. This pack comes in a water-resistant pouch, $30 \times 20 \times 10$ cm

- Triple Antibiotic Ointment (5 applications)
- Antacid tablets (24 pills)
- Diarrhoea Relief (24 pills)
- Antihistamine (24 pills)
- Non Aspirin pain relief (24 pills)
- Aspirin, (24 pills)
- Electrolyte Tablets, (24 pills)
- Sun Screen, SPF 30, 5 Packs of two applications per pack
- Sting Relief patches (24 units)
- Plasters, 50 assorted sizes
- Gauze, 1 x 4m sheet
- Triangular Bandage (3)
- Gauze Pads, 8cm x 8cm (20)
- Multi Trauma Dressing, 1m x 3m
- Heavy Zip Lock Bag
- Tweezers
- Surgical scissors
- Sutures and suture needles (x20)
- Synthetic Skin (TL12)

SURVIVAL IN SPECIFIC

ENVIRONMENTS

Arctic/Cold

Any environment where local temperatures remain at, or below the freezing point for water, are covered by this kind of classification. It is possible for some arctic environments for temperatures to rise above 18 degrees Celsius in summer months, but generally temperatures remain close to, or at, zero degrees and can dip as low as -60 degrees (or lower), exacerbated by windchill (see page 107)

Excluding altitude, generally the further away from the equator the colder the conditions will be although prevailing warm air currents (similar to the Earth's Gulf Stream) can affect this. Arctic conditions may have no land mass, being, instead, a floating sheet of permanently frozen ice At a planet's poles, both arctic and antarctic regions usually have only 2 seasons: a long winter which has perpetual darkness in mid winter, and a short summer which can have perpetual daylight. Temperatures and high winds produce the most hostile environment known to humans. For example, Antarctic winds of 177km have been recorded and in the autumn, winter winds reach hurricane force and can whip snow 30m into the air giving the impression of a blizzard even when it is not snowing. Larger planets and those with more erratic climates than Earth-equivalent bodies are likely to have even more severe conditions.

Flora

Most arctic regions are devoid of any large flora species and areas of permanent ice are devoid of any plant life. That said, large fauna in cold regions tend to occupy the top of the food chain and are merciless hunters, with little fear or timidity of humans: survival in such conditions is dependent on eating, and large predators (bears, for example) will have little fear of man.

Fauna

Warmer conditions offer tundra. Here the plant life is limited as the ground is subject to permafrost and the roots of plants cannot penetrate the frozen ground. Mosses and lichens are common low, bushy, simple plants that grow on the ground. Lichens can be edible, but must be thoroughly boiled or soaked in water for several hours before being eaten.

Below tundra regions, large areas of coniferous forest may prevail. In some areas this can be very extensive and cover a vast area, creating, in effect, a cold weather jungle. Such regions may well support far more abundant flora and fauna.

ENVIRONMENTAL HAZARDS

The Arctic areas are without doubt some of the most inhospitable areas on any planet. In tundra areas going can be slow due to deep snow and dense forests. In times of warmer temperatures rivers can rapidly thaw and become extremely dangerous, with strong, unpredictable currents and localised flooding.

Wind-chill/ breathing

As well as extremely low temperatures exposed arctic areas especially upland areas - are subject to strong, chilling winds. Wind chill can have a tremendous effect on the body. Inhaling very cold air burns the lungs, causing haemorrhaging and chilling the body's core temperature, leading to hypothermia. In these conditions the number of hours before hypothermia sets-in is Endurance/2 hours, rather than Endurance hours. And, if a character is in panic, having failed to resist the effects of Stress, then the threshold is Endurance/3 hours. Panicked characters tend to hyperventilate or take shallower, uncontrolled breaths, with increases the amount of icy air taken into the body.

The wind chill factor is the temperature felt on exposed skin. The action of the wind affects how quickly heat is lost from the body, as it is carried away by convection. In arctic environments, where altitude and wind speed can be high, and combined with a low air temperature, wind chill can be very dangerous.

The following table determines the temperature experienced by humans due to windchill. Cross reference the wind speed against the ambient temperature to determine the windchill temperature. then extinguishing the source of the carbon monoxide and leaving the shelter to get clean air is the solution. Scout handpacs contain a carbon monoxide sensor as a standard part of their sensor array.

Wind Speed Km/H	Ambient Air Temperature ((Centigrade)
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	8	5	0	-5	-10	-15	-20	-25	-30	-35
10	6	3	-2	-7	-12	-17	-22	-27	-32	-38
20	5	1	-7	-13	-19	-25	-31	-37	-43	-50
30	4	0	-11	-17	-24	-31	-37	-44	-50	-57
40	3	-1	-13	-20	-27	-34	-41	-48	-55	-62
50	3	-1	-15	-22	-29	-36	-44	-51	-58	-66
60	2	-2	-16	-23	-31	-38	-45	-53	-60	-68

FROSTBITE

The combination of cold temperature and poor blood flow can cause severe tissue injury by freezing the tissue. Frostbite is most likely to happen in body parts farthest from the heart, and those with a lot of surface area exposed to cold. High windchill (typically in mountains or high altitudes with snow) are often where the most serious causes of frostbite occur. If frostbite is not treated immediately then the damage and the frostbite become permanent. Nerve damage occurs due to oxygen deprivation. Frostbitten areas become discoloured, turning purplish at first, and soon turning black. After a while nerve damage becomes so great that feeling is lost in the frostbitten areas and blisters result. If feeling is lost in the damaged area, checking it for cuts and breaks in the skin is vital. Infected open skin can lead to gangrene and amputation may be the only remedy.

When dealing with windchill, note the following effects for frostbite:

- Frostbite occurs on exposed skin within 30 minutes below -30 degrees centigrade
- Frostbite occurs on exposed skin within 1 minute below -51 degrees centigrade
- Frostbite can occur on exposed skin within 30 seconds below -59 degrees centigrade

Characters suffering from frostbite suffer a loss of 1D6+1 points of Dexterity, and if not rapidly treated this becomes permanent. Even when treated, frostbitten characters lose 1 point of Dex permanently.

CARBON MONOXIDE

Once characters reach a shelter they tend to focus on getting warm and frequently neglect any problems of ventilation. Despite the temptation to use stoves and fires for extra warmth once they have been used to cook, this can be very dangerous as temporary shelters, such as snow shelters, are often poorly ventilated. Carbon monoxide can quickly build up and is odourless. A tired or sleeping character can quickly fall prey to the gas. Signs to be aware of are sudden or progressive drowsiness in a poorly ventilated area. If caught in time,

SNOW BLINDNESS

Snow blindness is the result of the glare of sunlight upon the surface of snow. It can be caused rapidly and reoccur once experienced. Even brief exposure can result in snowblindness and a relatively overcast day can also produce it. Symptoms start with the eyes loosing the ability to detect variations in ground level which can be dangerous in its self. As the condition worsens the eye becomes inflamed and sensitive, and then painful even when exposed to weak light. This is why snow goggles should be worn at all times. Characters

affected by snowblindness halve ther Dexterity characteristic, even if it has already been affected by other conditions. Treating snow blindness involves 1d3+2 days of complete darkness and rest.

Arid/Desert

Arid and desert environments are clearly hostile with their own sets of challenges. In these areas there are seven environmental factors that require consideration:

- Low rainfall.
- Intense sunlight and heat.
- Wide temperature range.
- Sparse vegetation.
- Sandstorms.
- Mirages.

LOW RAINFALL

Low rainfall is the most obvious environmental factor in an arid area. Some desert areas receive less than 10cm of rain annually, and this rain may come in brief torrents that quickly run off the ground surface. The prime survival consideration is therefore water: reserves, alternative sources and its conservation.

INTENSE SUNLIGHT AND HEAT

Intense sunlight and heat are present in all arid areas. Air temperature can rise to 60 degrees C or higher during the day, for Earth-like worlds, and considerably higher on planets closer to the home star. Heat gain results from direct sunlight, hot blowing winds, reflective heat (the sun's rays bouncing off the sand), and conductive heat from direct contact with the desert sand and rock.

In Earth-like deserts the temperature of sand and rock averages 16 to 22 degrees C more than that of the air. For instance, when the air temperature is 43 degrees C, the ground temperature may be 60 degrees C. Intense sunlight and heat increase the body's need for water. Shelter helps to conserve bodily fluids and energy, and to reduce exposure to the heat of the day. Travel at night is therefore preferable to lessen the use of water.

Sensitive items of equipment, unless shielded, will malfunction if exposed to intense, direct sunlight for any extended period of time.

WIDE TEMPERATURE RANGE

Temperatures in arid areas may get as high as 55 degrees during the day and as low as 10 degrees (or lower) during the night. The drop in temperature at night occurs rapidly and quickly chills anyone lacking warm clothing and is unable to move about. The cool evenings and nights are the best times to work or travel.

SPARSE VEGETATION

Vegetation is sparse in arid areas leading to issues with food, water and foliage to build or supplement shelter. Natural rock formations and caves offer the best sources of natural shelter, both from direct sunlight and heat; the temperature in shaded areas will be 11 to 17 degrees cooler than the ambient air temperature.

The lack of vegetation and, often, relief in arid and desert areas can also have implications for navigation and estimating distance. The emptiness of desert terrain causes most people to underestimate distance by a factor of three, if a Navigation or Reconn 8+ roll is failed: What appears to be 1 kilometre away is really 3 kilometres away.

SANDSTORMS

Sandstorms occur frequently in most deserts and can be prolonged; some Earth sandstorms, for example, can blow for up to 120 days. In an Earth-like desert, winds average 3 to 5 kilometres per hour and can reach 112 to 128 kph in early afternoon. Expect major sandstorms and dust storms at least once every 6 days (a result of 1 on a roll of 1D6).

The greatest danger is getting lost in a swirling wall of sand: Navigation and Recon rolls suffer a -6DM during any sandstorm. Wearing goggles and a mouth cover prevents sand from getting into the eyes and lungs; any character without such protection must roll Dex 10+ each round to avoid being rendered temporarily blind and incapacitated by choking sand.

Dust and wind-blown sand interfere with radio and sensor transmissions. Therefore, characters should be ready to use other means of signalling, such as pyrotechnics, signal mirrors, or marker panels, if available.

MIRAGES

Mirages are optical phenomena caused by the refraction of light through heated air rising from a sandy or stony surface. They occur in the interior of the desert about 10 kilometres from the coast. They make objects that are 1.5 kilometres or more away appear to move.

This mirage effect makes it difficult to identify an object from a distance. It also blurs distant range contours so much that character may feel surrounded by a sheet of water from which elevations stand out as islands.

The mirage effect makes it hard for a person to identify targets, estimate range, and see objects clearly: apply a -4 DM to all skills relying on accurate visual observation. However, with height (3 metres or more above the desert floor), it is possible to get above the superheated air close to the ground and overcome the mirage effect.

Exotic Atmospheres and High Gravity

Scouts frequently survey star systems where the planets have exotic atmospheres and far higher gravity than Earth-standard. Here, the survival principles are straightforward: long, medium and shortrange sensor scans are constant on the approach with a continual assessment of the planetary conditions. As much work is done remotely as possible, with drones or heavily shielded surveyors being used for work that needs to take place close-up.

As survival in an exotic atmosphere or high gravity environment is completely dependent on the protection offered by a ship – a costly resource – distance is by far the best survival technique. Where an exploration to a planet's surface is necessary (and sanctioned), Scouts rely on vacc suits and appropriate vehicles, and completely minimise the time spent, planet-side, in order to lengthen the survival odds.

Any atmosphere displaying corrosive or highly toxic components is never entered by individuals unless there is no other alternative. High gravity environments are considered to be those where gravity is twice Earth standard and, again, planet-side exploration is avoided because the working conditions are simply too hazardous to be effected. Therefore Scouts use distance and sensor/telescope arrays to conduct their surveys, helping to contribute to their survival rate. Scouts who shun the strict survey safety procedures, and thus jeopardise the lives of their crew and ship, are drummed-out of the Scout service and tend to earn the disdain of their colleagues. In a harsh universe, such ostracism can be every bit as difficult to survive as the physical challenges of the environment.

Jungle

Jungles offer some of the most hostile environments on any world, by their very nature containing vast areas of dense woodland and undergrowth often in intense heat and humidity as well as a vast array of stinging biting and poisonous fauna and flora.

The term jungle describes an area of dense undergrowth and woodland, generally occupying a tropical area. A tropical climate is generally defined as any environment with a year-round temperature of at least 18 degrees Celsius and high levels of humidity. Seasonal variations in temperature and foliage are minimal but some areas have distinct dry and wet seasons with daily rainfall in a wet season (tropical monsoon) being extreme and bringing extra hazards.

Dense jungle covers undeveloped river basins and mountain areas and may contain areas of swampland. Jungles at a high elevation



may still be very wet but can have a more temperate climate and even come close to freezing at high altitude during the night.

Jungles are, by their nature, undeveloped in terms of settlements. Natives may be nomadic or occupy well-hidden, localised settlements that are only reachable along known paths. The dense canopy of a jungle environment makes signalling difficult and elevated, eye-sight observation almost impossible; locating a group of survivors in a jungle is most effectively done with sensors lockingonto positioning relays and personal ID transmitters, although the climate and plethora of mobile fauna may mask or confuse signals.

NAVIGATION AND MOVEMENT

Jungles are often very wet with many rivers which can be fast flowing and contain harmful parasites or dangerous fauna. Heavy rain can produce rapid bank erosion and white water rapids or heavy vegetation can block and slow rivers producing swamps. When in search of rescue or aid, remaining close to a clearly navigable river can be a wise course of action, especially as most settlements will be near such waterways.

Movement overland can be very tiring, dense undergrowth can be near impossible to cut a path through and very exhausting. Endurance rolls of 8+ may be required at regular intervals (every 2-3 hours) to test the characters for fatigue. Sharp leaved plants can cut clothing or unprotected hands and the slightest cut can quickly become infected in such humid conditions. Navigation is particularly difficult as a clear view of the surroundings is often impossible. All Navigate and Reconn rolls are subject to a -1DM in addition to any other conditions that may affect visibility and sense of surroundings.

Normal techniques of compass navigation such as using handrails or taking bearing off terrain features are useless as the dense undergrowth prevents line of sight. Compass navigation is still of use if carried out in a very disciplined way, as it requires the use of pacing and the leap frog technique to keep on a bearing and accurately judge distance travelled. If characters have contact with a ship in orbit that acts as a Global Positioning Sensor (and most ship sensor packages offer this as a standard feature) GPS navigation can be used - although such systems are not without drawbacks. First, deep jungle valleys and dense canopy can actually block the system from getting a signal to pinpoint the position, leading to a loss of accuracy. Secondly most systems rely on batteries, which have a limited life span, which is further reduced in the hot, humid conditions. Unless GPS or similar equipment is moisture/humidity resistant, reduce its battery life by 25%.

JUNGLE FLORA

The high temperature and heavy rainfall results in an almost continual growth of native vegetation. Changes in vegetation type tend to be gradual.

Primary Jungle is an area of tall evergreen trees normally in lowland areas with a rainfall above 200cm per year. The high humidity and heavy rainfall causes trees to rot from the inside and some trees may fall without warning. The trees in this type of jungle normally grow up to 60 metres (or more) high with branches not appearing below 25 metres on most large trees. The overall light level is about the same as twilight and movement on foot is fairly easy as the dense canopy prevents thick ground level foliage. One problem for rescue is the almost total cover from being seen from the air and any smoke from single fires will be well dispersed by the time it penetrates the high canopy.

Secondary Jungle is the result of an area being cleared by fire or logging and then left. Exposure to sunlight results in rapid growth (2 –3 metres a year). Heavy ground foliage makes travel arduous and visibility only around 20 metres; some areas will be impenetrable and progress both noisy and tiring.

Native peoples are well versed in finding food from their jungle environment but for the inexperienced there are many poisonous or harmful plants. Vines and creepers should never be grasped and pulled by the naked hand as many have sharp thorns, or can split into extremely sharp fibres, which can cause deep lacerations. Bamboo, and bamboo-like plants can split to form sharp stakes when mature and any minor cut can be very serious due to the high risk of infection. Although vines and creepers may seem to be an excellent source of water (the old image of an explorer hacking a vine and drinking the clear, sweet water flowing out of it), it is generally *not* a good source of drinking water. If such water is red, yellow or milky in colour it is not safe to drink, as it carries natural toxins, harmful residues and parasites. Large sections of bamboo and bamboo-like plants *can* contain safe drinking water. To test for it tap the section of stem with blade or hard object and listen for a change in tone or sloshing sound. If present (Survival 8+), then such water is safe to drink.

Where shelter is concerned, jungle plants are very well adapted to such a damp environment and finding suitable leaves to make a waterproof shelter is often an easy task: Survival rolls for finding shelter gain a +1DM in a jungle environment. However, many plant saps contain irritants or toxins, which can be absorbed through the skin, so skin contact with plant sap should be avoided. Fungus is a major source of infections, as, in the high humidity, the body can become the perfect growing environment for a variety of unpleasant fungal parasites. Keeping feet dry is essential, if at all possible, as fungal foot infections in the jungle can quickly slow a person and turn a healthy one into a casualty.

JUNGLE FAUNA

The image is often of a jungle alive with large and dangerous predators. In reality jungles do, indeed, teem with such life but the greatest threat comes not from large animals but from invertebrates and smaller poisonous reptiles. Large predators will rarely attack adult humans - although they can be a real risk. Much more dangerous is the vast array of stinging and biting insects which can cause sickness or be carriers for disease. If scratched, insect bites can quickly become infected in such conditions draining morale and strength from the person involved. The watchword in a jungle environment is to keep as much skin covered as possible, regardless of the heat and humidity. Exposed skin attracts biting, blood-feeding insects, and characters can expect to receive 1d3 bites per day. Increase this by +1 or +2 depending on how much exposed flesh is on offer. Reduce the roll for the use of repellents – although, on an alien world, standard repellents may prove to be ineffective.

Many insects and invertebrates like warm, dark, damp hiding places, so checking footwear before putting feet into them is vital. If possible, sleeping should be done in hammocks above the ground, or in sealed habitat units, to offers some protection against nocturnal hazards. Larger predators and scavengers can be attracted by waste food and bodily waste so camp hygiene is essential.

Whilst large jungle fauna can be a good source of fresh meat, hunting is strenuous and difficult – even with modern weapons and techniques. Plus, due to the variety of parasites and climate conditions the consumption of jungle meat could prove risky; and, eating carrion of any kind is to be strongly avoided.

ENVIRONMENTAL HAZARDS

As already mentioned jungles are extremely hot and humid places and such conditions can place an enormous strain on the body. Despite the humidity dehydration can be a real problem and although water can be plentiful, clean water may not be. The rules for hydration, found earlier in this chapter, as applicable in a jungle environment as anywhere else. The jungle has a reputation for quickly destroying the fitness levels of the inexperienced, through dehydration, malnutrition, disease and fatigue. Psychologically the jungle's constant wall of green, and low light levels beneath the canopy, can seriously affect motivation and the sounds of the nocturnal animals can also be disturbing for those unused to them. All jungles have a basic Stress Level of 10.

Vacuum

No environment is more hostile than the vacuum of space. An absence of air, intense cold and high radiation levels mean that humans, without a vacc suit, have little chance of surviving for more than a few seconds in pure vacuum.

The principal functions of a vac suit are to create a pressurized, oxygenated atmosphere and to protect from ultraviolet rays and extreme temperatures. Without it, a character would asphyxiate from the lack of breathable air and suffer from *ebulism*, in which a reduction in pressure causes the boiling point of bodily fluids to decrease below the body's normal temperature. Since it takes a little bit of time for these things to kill, it *is* possible to make it through a very short period without a vacc suit, or in a vacc suit that has been compromised.

Any character can remain conscious for a number of seconds equal to his Endurance characteristic +1D6 before asphyxiation takes place. Holding one's breath, as in a pressured environment, will not help; in vacuum, oxygen expands within the lungs, causing severe internal damage. Therefore, if a character knows he is going to experience vacuum, he must expel all the air from his lungs (Survival 8+) to prevent this possibility – or he will experience 4D6 points of damage across his physical characteristics, in addition to all other vacuum effects.

Unconscious characters have, at maximum, 1D6+1 minutes before asphyxiating, even if unconscious. In this time, ebullism results in all moisture close to the surface of the skin beginning to boil, inflicting a further 2d6 damage.

DAMAGED VACC SUITS

The vacc suit is, of course, the most important piece of equipment any character can have for protection against the effects of vacuum. All vacc suits are designed to be pressurised, heated, and



radiation retardant. They are also designed to minimise pressure and oxygen leakage due to damage through small tears, rips and so forth. A relatively minor amount of damage to a vac suit will not pose too much of a threat to its occupant; self-sealing pads in the vac suit's fabric come into play to minimise the effects almost immediately, although an additional repair patch over the leak on the exterior of the suit is standard vacc suit protocol and covered in the Vacc Suit skill.

More serious damage – that which will impair the suit's integrity – poses a more immediate risk of death. Substantial tears through weapon damage, debris strikes and so forth must be repaired immediately using the Vacc Suit skill and with the repair pouches carried for the purpose. Assign the damage a severity rating from 8 to 12 (or higher) representing the degree of damage. This is the target number for the vacc suit repair roll the character must make. If it is a success, then the vacc suit has been repaired to a minimal standard, but the character needs to return to safety so that a full repair can be made. If the roll fails, then the Effect represents the amount of time the character has before the suit fully malfunctions and ceases to offer pressurised life support. If the Effect is o, then the character has 6+2d6 minutes to return to safety. If the Effect is -1 or -2, the character has 2d6 minutes. Effects of -3 of greater give just 1D6 minutes. After this period the suit loses pressure and heating, resulting in the ebullism effects noted above.

RADIATION

Space radiation is comprised of atoms in which electrons have been stripped away as the atom accelerates in interstellar space to speeds approaching the speed of light – eventually, only the nucleus of the atom remains. Space radiation is made up of three kinds: particles trapped in the magnetic field of a planet; particles shot into space during solar flares (solar particle events); and galactic cosmic rays, which are highenergy protons and heavy ions from outside a solar system. All of these kinds of space radiation represent ionizing radiation.

Galactic cosmic rays include heavy, high-energy ions of elements that have had all their electrons stripped away. Cosmic rays, which can cause the ionization of atoms as they pass through matter, can pass practically unimpeded through a typical spacecraft or the skin of an astronaut. The energy that ionizing radiation loses as it travels through a material or living tissue is absorbed by that material or living tissue. The ionization of water and other cell components can damage DNA molecules near the path the particle takes – a direct effect of which is breaks in DNA strands including clusters of breaks near one another; breaks that are not easily repaired by cells. Such DNA break clusters are much less frequent, or do not occur at all, when cells are exposed to the types of radiation found in planetary systems. Because it can disrupt an atom, space radiation also can produce more particles, including neutrons, when it strikes a spacecraft or its occupants – this is called a secondary effect.

Starship hulls and vacc suits use materials high in hydrogen composition, which greatly assists in protecting against direct and secondary effect radiation doses, and are thus shielded against the effects of radiation, and physical damage of the kind described above is unlikely to impair the suit's capabilities to any great extent. However any character that is caught in space without a vacc suit, or other, similar, anti-radiation protection, risks being irradiated by the cosmic rays found everywhere in space. Refer to the radiation rules on page 141 and 142 of the Traveller rules for details on the effects.

There is little anyone can do to combat the incessant radiation of space, or that emitted during solar particle events. Spacecraft sensor arrays continually probe for solar particle events whenever a ship enters a system, and if a solar particle event is occurring (Sensors 8+) the safest course of action – even given the shielding of a ship's hull and hydrogen fuel tanks – is to seek cover behind a system object such as an asteroid or in a planet's shadow. Referees may call for Pilot (spacecraft) rolls to take evasive action when a solar particle event is detected, to check the ability of the Scout to minimise solar radiation effects.

Advanced Chameleon Suit 50 Advanced Combination Telescope Array 49 Advanced Personal Drone 48 Advanced Probe Drone 50 All Terrain Mule 51 Analysis 14 AssayPacs 46 Assistant Squadron Supervisor Perdu Farilla 41 Base Doctor Hawn Vratch 42 Cargo Module 58 Ciphers 10 Co-Investigator Magris Heroloven 43 Communications 10 Contact 4 Courier 4 Covert Insertion Module 57 Covert Surveillance 18 Cultural Analysis 22 Customs Officer Mathis B'Heal 41 Deep Cover 18 Defraction Screen 50 **Diplomacy** 6 Emergency Modules 60 Espionage 18 Exploration 4 Fat Surveyor 73 First Contact 6 First Contact Communicator 48 Firebird 77 Ground Effect Bike 51 Hazardous Cargo Module 58 Holding Field 47 Hornet 70 Infrastructure 3 IT Head, K'Kaaark Kralllloricaaaar 43 Jun Li Chief Engineer 43 Lab Manager Podar Tallman 42 Lab Module 56 Lady Anna-Weyr Falkoni 44 Laslo Lars: Pilot/Helm 44 Life Scanner 47 Life Scanner/Analysis 47 Linguistics Analyser 47 Long Range Exploration Module 56 Long Range Sensor Module 56 Lord Sho'TeDark 44 Mahran Schaeffer 26 Makeover Unit 50 Mak Thannis: Captain/Navigator 44 ManPacs 46 Mariner 52 Military Grade Cryptography Unit 49

Modular survey and Interdiction Station 62 Mustang 79 Orbit Control Officer T'war Trendeck 41 Passenger Module 58 Pathfinder 14 Peela Trofflia Base science officer 42 Point Marker Beacon 50 Port Marshal Reuben Standard "Stan" 41 Port Supervisor Liam O'Ohlmstead 41 Primary Liaison 6 Pyers Bannerman: Mechanic/Gunner 44 Raifa Fayles, Assistant IT specialist 43 Rapid Survey Buggy 52 Research Assistant Rans Overl 43 Rodge Unter, Medic 42 ScanPacs 46 The Spud 42 Scout Cryptography Unit 49 Scout Supervisor Jax Tomlinson 41 Secure Storage Unit 49 Secure Storage Wafer 49 Shelter Cubes 45 Simeon san Simeon 44 Sir Raymond Folder 44 Sled 52 SnifferPacs 46 Spatial Inferred Neutrino 50 Special Operations 4 Squadron Commander Manik Hulka 40 Standard Scout Pac System 45 Stellar Analysis 22 Stellar Anomaly Analysis Array 50 Studas Matudas AKA"Studs", Assistant Engineer 43 Survey 4 Surveyor Tender 57 Survey Rider 75 Synthetic Skin 45 System Defence Module: Auxiliary Carrier 59 System Defence Module: Gunboat 59 System Defence Module: Strikeboat 59 Tannin Capsules 45 Total Recall 29 Translation Unit 47 Turtle class Emergency Station 60 Turtle II Emergency Station 61 Type FS Survey Scout 'Far Reach' 66 Type SX Frontiersman 53 Unicopter 51 Villa Rathus 43 World Analysis 22 xBoat 10 XLC₅ (Stingray) 81

Book 3: Scout

Every society needs its pathfinders and pioneers - those who will go boldly into the unknown to chart new territories, explore new routes, seek out new civilisations and extend the influence of their species.

These are the Scouts: lone explorers and specialised teams who brave the dangers of space to extend knowledge, understanding and influence. This book takes a detailed look at Scouts, including expanded character generation, new missions, new equipment and new ships. It includes chapters on how worlds are surveyed and mapped, and how to survive in hostile environments. Also included is a sample scout base with its personnel, and an overview of the Imperium's Scout Service, the IISS.

A must for all Traveller pioneers!



