

Book 3—Worlds and Adventures

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TRAVELLERTM
Science-Fiction Adventure
in the Far Future

Game Designers' Workshop

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Worlds

The referee has the responsibility for mapping the universe before actual game play begins. The entire universe is not necessary immediately, however, as only a small portion can be used at any one time. In unsupervised play, one of the players can generate worlds and perform mapping on a turn by turn or adventure by adventure basis.

The universe is mapped in convenient segments, called subsectors. Each subsector is an area of hexagonal cells measuring eight hexes by ten hexes. Since the recommended scale is one parsec (3.26 light years) per hex, the subsector covers an area ten parsecs by eight parsecs. The subsector grid on page 13 is intended to be photocopied by the referee and filled in as worlds are generated. Additional copies can be made as mapping continues to other subsectors.

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

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

STAR MAPPING

In order to create a subsector, the referee uses a blank subsector grid and dice to determine the presence of systems, starports, and bases. The system hex format table shows the coding and placement of information about worlds within a subsector. This format should be used to allow players and referees to note the information that would normally be available to them. The referee may elect to omit some information, and only allow it to be inserted after the players have determined it themselves.

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

The referee may elect to alter the normal chances of worlds, making them more frequent or less frequent to correspond to specific regions of the galaxy. This is easily accomplished by imposing a DM of +1 or -1 on the whole subsector, or on broad areas within a subsector.

Starport Type: Many worlds have starports, their presence being essential to interstellar trade and commerce. Each world must be checked for its starport type; throw two dice for each world in the subsector, and mark the world with the letter indicated on the system contents table.

The system contents table indicates one specific distribution of starports as a

basis for starmapping. Just as the distribution of stars can be altered (as indicated in world occurrence), the referee is also free to create other starport distributions.

Starports are further described in the starport types table. In many cases, starports will be accompanied by naval or scout bases, and will have a wide range of facilities. In nearly all cases, a planet will consider that a starport is extraterritorial, and not subject to local law, but will also enforce strict entrance and exit controls.

Bases: Stellar systems may have bases for military forces, the navy, the scouts, or for other arms of interstellar government. The system contents table indicates the die throws for specific types of bases to be present at a world, depending on the starport type. If a base is present, it should be marked in the hex in accordance with the world format.

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

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

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

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

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

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

Communications Routes: Within the subsector, local governments will have established communications or trade routes connecting some (but not all) worlds. These routes serve as a conduit for messages between businesses and between governments as well as between people. They also serve as the basic routes that liners and large freighters travel. The referee should examine the subsector map and connect key worlds with communications routes. If the subsector is an isolated community, the routes may not leave the map; if it is part of a larger confederation or empire, the routes will probably leave the edges to join with other parts of the sector.

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

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

WORLD CREATION

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

The worlds contained in the star systems on the subsector map may be further classified in terms of their gross physical characteristics and their effects on persons living on them or travelling to them. These characteristics (starport, six basics, plus a technological index) indicate specific facts about a world through the use of single digits (the numbers 0 through 9) and letters (A through Z, omitting O and I as they may be confused with numbers). In most cases, the instructions below concentrate on numbers, reserving letters for use by the referee to describe extraordinary situations.

This world creation process applies only to the single most important world in a star system; additional planets in a system should be generated by the referee as necessary.

The six basic planetary characteristics are generated using two-dice throws, with DMs applied based on other characteristics. After these six are established, a technological index is created from the information they contain and from the world's starport type. Starport type, the six basic characteristics, and tech level establish the basic identity of a world. Additional information can be generated, and should be, to more fully describe a world.

When originally generating a world, a subsector index containing world name, location, universal planetary profile, and other basic data should be compiled. This listing should be available to players who travel through the subsector.

In addition, each world should be allocated at least one (and preferably several) pages in a central notebook maintained by the referee. As characteristics are generated, they should be recorded along with the name of the world and its location (generally its subsector and hex number). In addition, the referee should generate other information which may be pertinent; this may include details of other planets in the star system, radiation characteristics of the star, the types of terrain present on the planetary surface, unique encounter tables (as prescribed by the section on animal encounters), data on flora and fauna, industrial or agricultural capacity, data on social structure and government, or possibly actual maps of the planetary surface.

The individual characteristics for worlds are produced by six two-dice throws, modified by circumstances and by some previous characteristics. The specific throws are given in formula form below, and in the world generation checklist.

Starports (from starport table): The starport type has already been generated when the subsector was mapped, and the information should be noted from the map.

Planetary Size (2D-2): The digit representing planetary size indicates the diameter of the planetary sphere stated in thousands of miles. This size is used in book 1 to compute varying gravitational strengths. It is used in book 2 for the creation of planetary templates for space combat using miniatures.

Planetary Atmosphere (2D-7+size; if size 0 then atmosphere 0): The digit indicating planetary atmosphere represents the type of atmosphere encountered on the world. Varying types of atmospheres require the use of protective clothing or masks.

Hydrographic Percentage (2D-7+atmosphere; if size 0 then hydrographies 0, if atmosphere 0, 1, or A+, then apply DM -4): The digit indicating hydrographic percentage represents the percentage of planetary surface (in increments of 10%) covered by seas or oceans. For normal worlds, this will be water; on other worlds (with exotic, corrosive, or insidious atmospheres), it may instead be other liquids, such as ammonia.

Population (2D-2): The digit indicating population is an exponent of 10. This may be viewed as the number of zeros following a one. Thus, a population digit of 6 indicates a population of approximately 1,000,000.

Planetary Government (2D-7+population): The digit representing planetary government indicates a range of possible ruling systems, from anarchy to totalitarianism. The planetary government table gives a brief precis of the general characteristics of each government type. Balkanization is a special result, and indicates that there is no world government; instead several rival territorial governments exist. In such cases, the referee should generate the specific qualities of each territory on the planet separately.

Law Level (2D-7+ government): The digit representing law level indicates the relative force of law extant on the world. The level specifically states the restrictions in force concerning the possession and use of weapons by individuals.

At times, the referee (or the players) will find combinations of features which may seem contradictory or unreasonable. Common sense should rule in such cases; either the players or referee will generate a rationale which explains the situation, or an alternative description should be made.

Finally, the referee should always feel free to create worlds which have been deliberately (rather than randomly) generated. Often such planets will be devised specifically to reward or torment players.

TECHNOLOGICAL LEVEL

The degree of technological expertise, and thus the capabilities of local industry, depends greatly on the basic characteristics of a world. This technological index is generated based on a one die throw, modified by DMs dependent on planetary characteristics.

Consult the tech level table and reference the appropriate planetary digits with the descriptions; note all DMs indicated, and sum them to form one total DM. Throw one die, and modify the result, thus determining the local technological level. Note the result in the appropriate records.

Technological index may vary from zero to 20, more commonly ranging from 4

through about 10. Higher numbers indicate greater capability.

The technological level is used in conjunction with the technological level table to determine the general quality and capability of local industry. The tables indicate the general types or categories of goods in general use on the world. In most cases, such goods are the best which may be produced locally, although better goods may be imported by local organizations or businesses when a specific need is felt. In most cases, local citizenry will not be armed with weapons of a type which cannot be produced locally, although police or military may be. Technological level also indicates the general ability of local technology to repair or maintain items which have failed or malfunctioned.

The technological level tables have several spaces or holes, and such gaps should be filled in by the referee or the players when they discover items or devices of interest.

REFEREE'S NOTES

The purpose of the world generation sequence can best be seen as a prod to the imagination. Even the most imaginative individual soon loses brilliance in the face of creating hundreds of individual worlds. The procedure substitutes die rolls for random imagination and then allows the referee to use that information to determine specific world data. Imagination may be required to explain a tech level 4 civilization in an asteroid belt, or a high population world with a participating democracy for a government.

Specific characteristics for worlds should be construed as guidelines rather than strict limits. For example, a world with a hydrographic percentage of A is 100% ocean; nevertheless, the world would have some small islands sufficient for establishing a starport.

Starport: The various starport types are intended to provide a variety of facilities for use in trade or survey missions. Starports provide fuel or construction yards.

Bases: The tables provide for scout and naval bases at some worlds. These bases serve as points for scout and naval veterans to renew acquaintances with old friends, to find potential patrons, and to scrounge or buy surplus equipment of use to them. The referee may elect to include other types of bases, perhaps army bases, merchant exploration or trade bases, and defense establishments.

Travel Zones: The use of travel zones is intended to assist in designating areas to avoid and areas to explore. The referee should consider travel zones and their underlying reasons.

World Size: The generation tables assume that the world in question will be a solid matter sphere. Some alternatives are possible, although they are rare enough to require implementation by the referee. These include:

Rosettes: Three or more equal masses (worlds) set at the points of an equilateral polygon, and with the correct equal angular velocities about their center of mass, will have a stable orbital configuration. In fact, no central star is required for the group. Rosettes will almost never occur naturally.

Ringworlds: An incredibly strong band may be set rotating about a central star, making a ringworld which uses centrifugal force to provide a simulation of gravity. Such a ringworld, of 93 million miles radius, and with a width of 1 million miles, has a usable surface area equal to about 3 million Earths.

Sphereworlds: Using materials similar to those in a ringworld, and adding gravity

generators where necessary for strength and comfort, a spherical shell could be used to completely enclose a star. Such a shell would then trap all stellar radiation for use by the civilization. With a radius of about 93 million miles, the internal surface area would equal about one billion Earths.

Atmosphere: The various atmosphere types require specific personal equipment for survival and protection.

No atmosphere and trace atmosphere require use of a vacc suit.

Tainted atmospheres require the use of filter masks.

Very thin atmospheres require the use of compressors to insure sufficient oxygen to breathe. The tainted very thin atmosphere requires a combination respirator/filter mask for survival.

Thin, standard, and dense atmosphere are breathable without assistance.

Exotic atmospheres require the use of oxygen tanks, but protective suits are not required.

Corrosive atmospheres require the use of protective suits or vacc suits.

Insidious atmospheres are similar to corrosive atmospheres, but will defeat any personal protective measures in 2 to 12 hours.

Hydrographies: It is possible for some worlds with vacuum atmospheres to have hydrographic percentages greater than 0. In such cases, the world has ice-caps present; the water will not be free-standing liquid.

Population Density: For comparison, the following population densities are common on twentieth century Earth. Earth on the whole has a population of about three billion (population level 9); this is approximately 5 persons per square mile, or 16 persons per square mile of land area. Europe is populated at about 151 persons per square mile, the equivalent of population level 10. The Netherlands contain 1500 persons per square mile, or about population level 11. Hong Kong has 10,000 persons per square mile, the equivalent of population level 12.

Government; Government types are intended to convey the general type of authority on the world; each listed type should be a clue to the referee in administering details of encounters on the world.

Law Level: Law level is an indication of the relative oppressiveness of the world. The digit is classified on the law level table to show prohibitions against weapons. It is also the throw (law level +) to avoid being harrassed or arrested by local authorities.

Tech Level: The technological level of a world determines the quality and sophistication of the products of a world. It indicates what precise types of equipment are available and common locally.

Trade Classifications: Additional details of a specific world can be expressed by the trade classification and statements about the world. The referee should be ready to establish new classifications when appropriate.

SYSTEM CONTENTS TABLE

<i>Die Roll</i>	<i>Starport</i>	<i>Naval Base</i>	<i>Scout Base</i>	<i>Gas Giant</i>
2	A	no	no	yes
3	A	no	no	yes
4	A	no	no	yes
5	B	no	no	yes
6	B	no	no	yes
7	C	no	yes	yes
8	C	yes	yes	yes
9	D	yes	yes	yes
10	E	yes	yes	no
11	E	yes	yes	no
12	X	yes	yes	no

Roll once for each column.

Scout base: Apply DM -1 if starport C; -2 if starport B; and -3 if starport A. Do not roll if starport E or X.

Naval base: Do not roll if starport C, D, E or X.

STARPORT TYPES

Type Description

A Excellent quality installation. Refined fuel available. Annual maintenance overhaul available. Shipyard capable of constructing starships and non-starships present. Naval base and/or scout base may be present.

B Good quality installation. Refined fuel available. Annual maintenance overhaul available. Shipyard capable of constructing non-starships present. Naval base and/or scout base may be present.

C Routine quality installation. Only unrefined fuel available. Reasonable repair facilities present. Scout base may be present.

D Poor quality installation. Only unrefined fuel available. No repair or shipyard facilities present. Scout base may be present.

E Frontier installation. Essentially a marked spot of bedrock with no fuel, facilities, or bases present.

X No starport. No provision is made for any ship landings.

SIZE

<i>Digit</i>	<i>Description</i>
0	Asteroid/Planetoid Belt.
1	1000 miles (1600km).
2	2000 miles (3200km).
3	3000 miles (4800km).
4	4000 miles (6400km).
5	5000 miles (8000km).
6	6000 miles (9600km).
7	7000 miles (11200km).
8	8000 miles (12800km).
9	9000 miles (14400km).
A	10000 miles (16000km).

Note: World sizes greater than A may be created by the referee.

ATMOSPHERE

<i>Digit</i>	<i>Description</i>
0	No atmosphere.
1	Trace.
2	Very thin, tainted.
3	Very thin.
4	Thin, tainted.
5	Thin.
6	Standard.
7	Standard, tainted.
8	Dense.
9	Dense, tainted.
A	Exotic.
B	Corrosive.
C	Insidious.

Note: Atmosphere types may require protective clothing. The precise requirements are given on page 9.

HYDROGRAPHICS

<i>Digit</i>	<i>Description</i>
0	No free standing water. Desert.
1	10% water.
2	20% water.
3	30% water.
4	40% water.
5	50% water.
6	60% water.
7	70% water.
8	80% water.
9	90% water.
A	No land masses. Water World.

POPULATION

Digit Description

- 0 No inhabitants.
- 1 Tens of inhabitants.
- 2 Hundreds of inhabitants.
- 3 Thousands of inhabitants.
- 4 Tens of thousands.
- 5 Hundreds of thousands.
- 6 Millions of inhabitants.
- 7 Tens of millions.
- 8 Hundreds of millions.
- 9 Billions of inhabitants.
- A Tens of billions.

LAW LEVEL

Digit Description

- 0 No prohibitions.
- 1 Body pistols undetectable by standard detectors, explosives (bombs, grenades), and poison gas prohibited.
- 2 Portable energy weapons (laser carbine, laser rifle) prohibited. Ship's gunnery not affected.
- 3 Weapons of a strict military nature (machine guns, automatic rifles) prohibited.
- 4 Light assault weapons (sub-machineguns) prohibited,
- 5 Personal concealable firearms (such as pistols and revolvers) prohibited.
- 6 Most firearms (all except shotguns) prohibited. The carrying of any type of weapon openly is discouraged.
- 7 Shotguns are prohibited.
- 8 Long bladed weapons (all but daggers) are controlled, and open possession is prohibited.
- 9 Possession of any weapon outside one's residence is prohibited.

Note: Law level is also the general throw for police or enforcement harassment for violations. Thus, on a world with law level 4, the throw to avoid arrest when encountering an enforcement agent such as a customs official or policeman is 4+.

GOVERNMENT

Digit Description

- 0 No government structure. In many cases, family bonds predominate.
- 1 Company/Corporation. Government by a company managerial elite; citizens are company employees.
- 2 Participating Democracy. Government by advice and consent of the citizen.
- 3 Self-Perpetuating Oligarchy. Government by a restricted minority, with little or no input from the masses.
- 4 Representative Democracy. Government by elected representatives.
- 5 Feudal Technocracy. Government by specific individuals for those who agree to be ruled. Relationships are based on the performance of technical activities which are mutually beneficial.
- 6 Captive Government. Government by an imposed leadership answerable to an outside group. A colony or conquered area.
- 7 Balkanization. No central ruling authority exists; rival governments compete for control.
- 8 Civil Service Bureaucracy. Government by agencies employing individuals selected for their expertise.
- 9 Impersonal Bureaucracy. Government by agencies which are insulated from the governed.
- A Charismatic Dictator. Government by a single leader enjoying the confidence of the citizens.
- B Non-Charismatic Leader. A previous charismatic dictator has been replaced by a leader through normal channels.
- C Charismatic Oligarchy. Government by a select group, organization, or class enjoying the overwhelming confidence of the citizenry.
- D Religious Dictatorship. Government by a religious organization without regard to the specific needs of the citizenry.

WORLD GENERATION CHECKLIST

- Determine world occurrence (1D for 4, 5, 6 is standard).
- Check system contents table (page 10) for details of world.
 - Find starport type.
 - Check for naval base.
 - Check for scout base.
 - Check for gas giant.
- Name world.
- Decide if travel zone coded.
- Establish communications routes.
- Generate universal planetary profile for world.
 - Note starport type.
 - Planetary size: 2D-2.
 - Planetary atmosphere: 2D-7 +size. If planetary size is 0, the atmosphere must be 0.
 - Planetary hydrographics: 2D-7 +size. If planetary size is 0, then hydrographics must be 0; if atmosphere is 0, 1, or A+, then apply a DM of -4.
 - Population: 2D-2.
 - Government: 2D-7+population.
 - Law level: 2D-7+government.
 - Technological Level: 1D+DMs. from tech level table.
- Note trade classifications (page 16) based on universal planetary profile.
- Note statistics for reference.

TECH LEVEL TABLE

Star-Digit	port	Sue	Atm	Hyd	Pop	Govt
0		+2	+1	—	—	+1
1		+2	+1	—	+1	—
2		+1	+1	—	+1	—
3		+1	+1	—	+1	—
4		+1	—	—	+1	—
5		—	—	—	+1	+1
6		—	—	—	—	—
7		—	—	—	—	—
8		—	—	—	—	—
9		—	—	+1	+2	—
A	+6	—	+1	+2	+4	—
B	+4		+1			—
C	+2		+1			—
D	—		+1			-2
E	—		+1			—
F						—
X	-4					

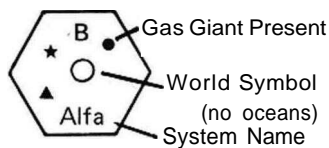
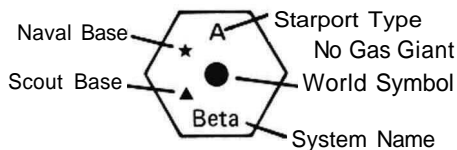
Determine DMs from this table and apply them to 1D to find tech level.

Tech level is more fully presented with tables on pages 14 and 15 showing achievements at specific levels.

Note: Dashes indicate that there is no DM for the given digit; blanks indicate that there is no digit possible in that situation under this generation system.

SYSTEM HEX FORMAT

When noting information on the subsector grid map, the following format should be used to insure that all necessary information is recorded.



WORLD DATA FORMAT

When noting universal planetary profiles, the following format should be used in order to insure recording all necessary information. Information should include: name, hex location, UPP, bases, trade classifications, travel zones, and gas giant.

Speer 0108 C432430 - 8 S Poor. Non-industrial.

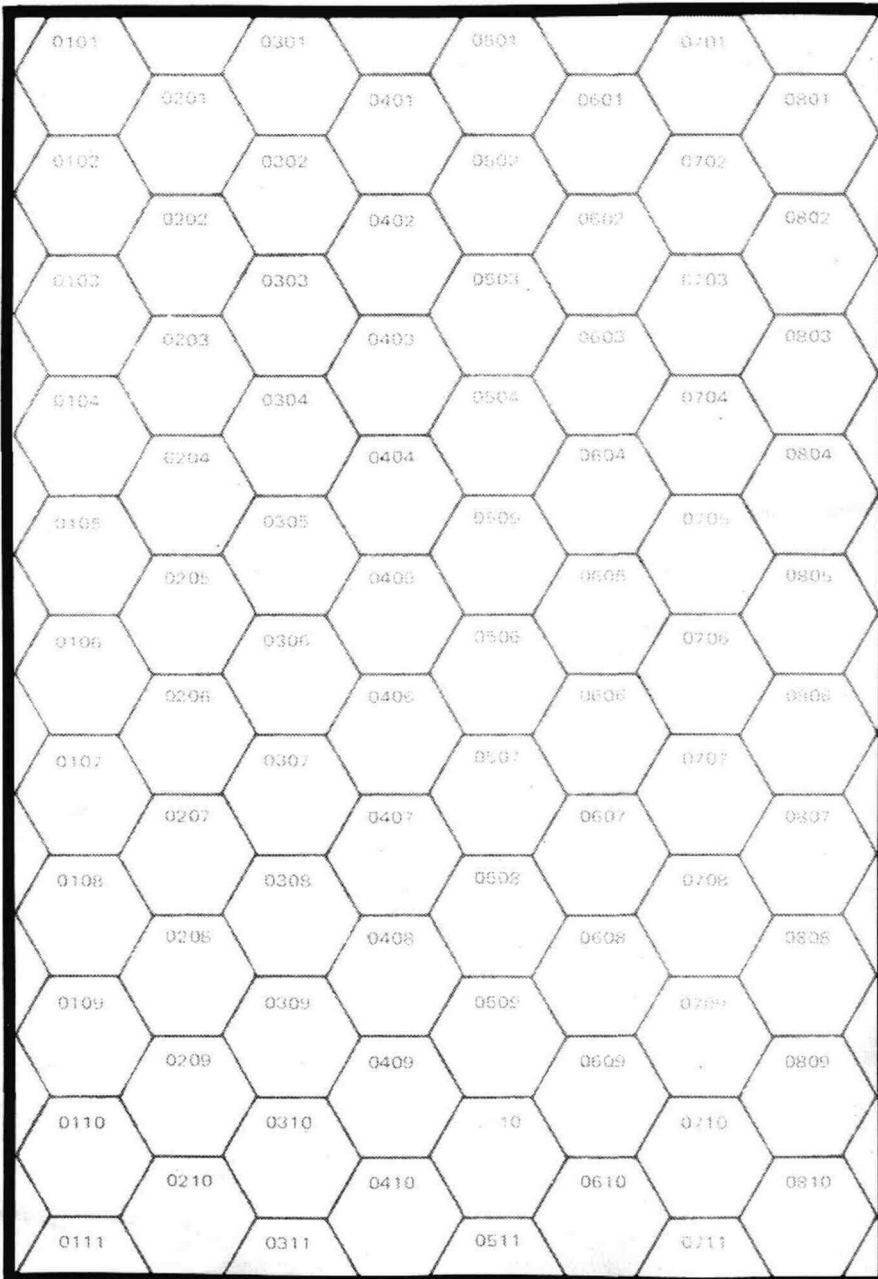
RG

SUBSECTOR MAP GRID

Indicate adjacent subsectors at boundaries of this map grid.

1. Subsector Name

2. Date of Preparation



TECHNOLOGICAL LEVELS

	<i>Weaponry</i>				
	<i>Personal</i>	<i>Armor</i>	<i>Heavy</i>	<i>Computers</i>	<i>Communications</i>
0	club, cudgel spear				runners
1	dagger, pike sword	jack	catapult	abacus	heliograph
2	halberd, matchlock broadsword		cannon		
3	foil, cutlass, flintlock blade, bayonet				
4	revolver shotgun		artillery	adding machine	telephones
5	carbine, rifle pistol, SMG	steel plate	sandcasters mortars	Model/1	radio
6	auto rifle light machine gun	cloth	missiles missile launchers	Model/1 bis	television
7	body pistol	mesh flak jacket	pulse laser grenade launcher	Model/2	
8	laser carbine snub pistol	vacc suit	auto-cannon	Model/2 bis	hand calculator
9	laser rifle	ablat	beam laser	Model/3	artillery computer
10		reflec		Model/4	battle computer
11		combat armor		Model/5	
12				hand computer	
13		battle dress		Model/6	
14					
15					
	<hr/> beyond common levels <hr/>				
16			disintegrators		
17				artificial intelligence	
18					
19					
20					
21					

TECHNOLOGICAL LEVELS

	<i>Water</i>	<i>Land</i>	<i>Air</i>	<i>Space</i>	<i>Energy</i>
0	canoes	carts			muscle
1	rafts				
	galleys	wagons			
2					wind
3	sailing ships		hot air balloons		water wheel
4	steamships	trains	dirigibles		coal
5		ground cars	fixed wing aircraft		oil
6	submersibles	ATV AFV	rotary wing aircraft		fission
7	-----hovercraft-----			non-starships	solar
8			air/rafts		fusion
9				drives A - D jump drive	
10	-----grav vehicles-----			drives E - H	
		grav tanks			
11				drives J - K	
12			grav belts	drives L - N	
13				drives P - Q	
14				drives R - U	
15				all drives	
16	-----matter transport-----				
17					anti-matter
18					
19					
20					
21					

TRADE CLASSIFICATIONS

The term trade classification is a general catch-all phrase that covers world attributes which influence trade and commerce, and other information that is of interest to travellers. Some trade classifications influence the trade and commerce table in Book 2.

Agricultural worlds have large portions of their economies devoted to agriculture. They must have an atmosphere of 4 through 9, hydrographic percentage of 4 through 8, and a population of 5 through 7.

Non-agricultural worlds must import much of their foodstuffs from off planet. While such a world may produce synthetic foodstuffs for local consumption, it probably imports quality foods as luxury items. A non-agricultural world must have an atmosphere of 3 or less, a hydrographic percentage of 3 or less, and a population of 6 or more.

Industrial worlds have large production bases and can easily engage in the manufacture of finished goods. Such a world must have an atmosphere of 0, 1, 2, 4, 7, or 9 (vacuum, trace, or tainted), and a population of 9 or greater.

Non-industrial worlds are forced to import much of their finished goods. Non-industrial worlds must have a population of 6 or less.

Rich worlds have good climates and environments and are sought after by most individuals as living places. A rich world must have government type 4 through 9, an atmosphere of 6 or 8, and a population of 6 through 8.

Poor worlds are undeveloped and marginal backwaters. A poor world must have an atmosphere of 2 through 5 and a hydrographic percentage of 3 or less.

Water worlds are totally covered by seas and oceans. Each has a hydrographic percentage of A.

Desert worlds have no standing water. Each has a hydrographic percentage of 0.

Vacuum worlds have no atmosphere. Each has an atmosphere of 0.

Asteroid belts are accumulations of small planetoids in a belt around the central star of the system. Each must have a size 0.

Ice-capped worlds have water present only in the form of ice caps; these are mostly vacuum worlds which would ordinarily have no water. Each must have an atmosphere of 0 or 1 and a hydrographic percentage of 1 or greater.

Subsector capital is the term given to the single most important world in the subsector, especially if the entire sector is under one interstellar government. Capital is the term given to a world which is the seat of an interstellar government. If there are several interstellar governments within a subsector, each will probably have a capital. Capital designations are assigned by the referee.

Other notations are possible as well. The referee may elect to note the presence of prison worlds, exile worlds, preserves or reserves for various purposes, and so on.

Equipment

The infinity of physical objects in the universe and the variation in their potential costs and values defy classification; it is impossible to note and define them all. The objects below are presented as indications of common qualities and values.

Each listing notes the object's name, followed by its technological level in parentheses, a price in credits, and a basic description. The technological level indicates local technology required to manufacture something with the capabilities listed. Price and weight are for an item manufactured by an interstellar society of tech level 10-15; items produced at lower tech levels (including the one mentioned in the description) will probably be bulkier and more expensive. An item with no weight or size given can be carried or worn without difficulty. Additional lines of explanation are given where considered necessary.

This listing may be considered a shopping list for travellers. When they originally outfit themselves for an adventure, each may purchase or acquire items from this list in preparation for action or mishap. For the most part, this list does not include weaponry, and all items are generally available for purchase without difficulty on worlds with a sufficient technology level (on other worlds, they may be available as imports at higher prices). Often, the base price for these items will be altered higher or lower using the trade and speculation rules for percentage price changes.

PERSONAL EQUIPMENT

The following are personal survival items often needed by individuals.

Respirator (5) Cr100. A small compressor which allows an individual to breathe in very thin atmospheres (type 3).

Filter Mask (3) Cr10. A filter set which allows an individual to breathe tainted atmospheres (types 4, 7, and 9).

Combination (5) Cr150. A combination of both filter mask and respirator which allows breathing of very thin, tainted atmospheres (type 2).

Oxygen Tanks (5) Cr500. A complete set of compressed oxygen tanks which allow independent breathing in smoke, dust, gas, or exotic (type A) atmosphere. Two tanks last 6 hours, weigh 5 kg. Refill: Cr20.

Underwater Air Tanks (5) Cr800. Equivalent to oxygen tanks but designed for use underwater. Two tanks last 6 hours, weigh 5 kg. Refill: Cr20.

Artificial Gill (8) Cr4000. Extracts oxygen from water to allow unlimited time submerged. Functions only on worlds with thin, standard, or dense (type 4 through 9) atmospheres. Weighs 4 kg.

Swimming Equipment (3) Cr200. Includes swim fins, wet suit, face mask.

Protective Suit (5) Cr700. Protects against corrosive (type B) atmosphere. Weighs 5 kg, treated as jack. Heavier version (7 kg) available at Cr1400, treated as cloth.

Vacc Suit (8) Cr10,000. Worn in vacuum, trace, exotic, or corrosive atmospheres. May also be worn in very thin or tainted atmospheres if desired. Includes oxygen tanks, short range communicators, and other required equipment. Weighs 10 kg. More fully described, with variations, in Book 1, page 42.

Cold Weather Clothing (1) Cr200. Protects against frigid weather. Treated as jack.

PERSONAL DEVICES

The following is an assortment of devices which individuals may find useful.

Short Range Communicator (5) Cr100. Belt-mounted radio capable of 10 km range (much shorter underground or underwater). Three separate channels. Weighs 5 kg at tech level 5, 300 grams at tech level 7.

Medium Range Communicator (5) Cr200. Belt-mounted or sling carried radio set capable of up to 30 km range, and contact with official radio channels. Five separate channels. Weighs 10 kg at tech level 5, 500 grams at tech level 7.

Long Range Communicator (6) Cr500. Back-pack mounted radio capable of ranges up to 500 km and contact with ships in orbit. Ten separate channels. Weighs 15 kg at tech level 6, 1.5 kg at tech level 7.

Magnetic Compass (3) Cr10. Indicates direction of magnetic north, if any exists.

Inertial Locator (9) Cr1200. Indicates direction and distance travelled from the starting location. Weighs 1.5 kg.

Metal Detector (6) Cr300. Indicates presence of metal. Weighs 1 kg.

Radiation Counter (5) Cr250. Indicates presence and intensity of radioactivity. Weighs 1 kg.

Bull-Horn (5) Cr120. Amplifies voice to very long range. Weighs .5 kg, but is very bulky and awkward to carry.

Hand Calculator (7) Cr10. Provides basic mathematical calculations. Weighs .1 kg.

Hand Computer (11) Cr1000. Provides services of a small computer, plus serves as a computer terminal when linked (by its integral radio, or by other circuit) to a computer. Weighs 0.5 kg.

Artificial Psionic Shield Helmet (8) Cr4000. Acts as a shield against psionic forces. Weighs 1 kg.

Handcuffs (2) Cr25. Weigh 0.3 kg. Higher tech levels produce lighter designs.

Wrist Watch (4) Cr25 to CR 1000. Price determines quality.

VISION AIDS

The following items are generally used to allow enhanced vision:

Binoculars (3) Cr75. Weigh 1 kg.

IR Goggles (6) Cr500. Allows wearer to see heat sources (infrared radiation) in the dark. Quality of vision is necessarily distorted.

Light Intensifier Goggles (7) Cr500. Allows vision in anything less than total dark.

Torches (1) Cr1. Last about 20 minutes. Each weighs 0.25 kg.

Electric Torches (5) Cr10. Last about 6 hours continuous use. Weigh 0.5 kg.

Gas or Oil Lamp (2) Cr10. Last about 6 hours. Weighs 0.5 kg.

Cold Light Lantern (6) Cr20. Lasts 3 days continuous use. Weighs 0.25 kg.

TOOLS

The following are examples of tools or tool sets available:

Carpentry Tool Set (2) Cr300. Includes basic tools necessary to cut, shape and build with wood. Boxed set weighs 25 kg.

Metalwork Tool Set (4) Cr1500. Includes basic tools necessary for metal-working, welding, shaping. Boxed set weighs 50 kg.

Chain Saw (6) Cr500. Motorized saw for cutting and shaping trees. Weighs 8 kg.

Mechanical Tool Set (5) Cr1000. Includes basic tools necessary to repair and

alter mechanical devices. Boxed set weighs 20 kg.

Medical Kit (7) Cr1000. Contains drugs, surgical supplies, and diagnostic materials for use by doctors. Weighs 10 kg.

Electronic Tool Set (7) Cr2000. Necessary tools for basic electronic assembly and repair. Boxed set weighs 5 kg.

Lock Pick Set (4) Cr10. Allows picking of ordinary locks on a throw of 8+; throw once per 15 seconds. Lockpicks are illegal on worlds of law level 8+; on such worlds the cost rises to Cr100 or more.

Disguise Kit (7) Cr1,000. Allows change of personal appearance on a temporary basis. Complete kit weighs 5 kg.

SHELTERS

The following are portable or temporary shelters commonly available:

Tarpaulin (1) Cr10. A canvas or waterproof cloth sheet used to create a temporary shelter. 2 by 4 meters. Weighs 2 kg.

Tent (2) Cr200. Basic shelter for two persons. Weighs 3 kg. Larger, more elaborate tents weigh and cost more.

Pressure Tent (7) Cr2000. Basic shelter for two persons, providing standard atmosphere and conditions. There is no airlock: the tent must be depressurized to enter or leave it. Weighs 25 kg.

Pre-Fabricated Cabin (6) Cr10,000. Modular unpressurized quarters for 6 persons. 2 by 6 by 6 meters. Can be carried in the hold of a starship. Weighs 4 tons.

Advanced Base (8) Cr50,000. Modular pressurized quarters for 6 persons, with air lock and atmosphere recirculating system. 2 by 6 by 6 meters. Can be carried in the hold of a starship. Weighs 6 tons.

FOOD AND OVERHEAD

The following are indications of the prices for food and basic survival:

Basic Cuisine on a Daily Basis: Food is available in a variety of forms and qualities. Prices indicated are per person.

Restaurant meals of ordinary quality cost Cr10 per day. Excellent quality meals range in price from Cr20 to Cr50 per person. Travellers' Aid Society facilities provide excellent quality meals to members and guests for Cr20.

Food purchased from vendors for preparation at home costs about Cr5 per day, and weighs about 1 kg.

Preserved foods for rations on expeditions may be canned or packaged (Cr20 per day, weighs .5 kg) or dehydrated (Cr25 per day, weighs .2 kg, dependent on locally supplied water).

Subsistence on a Long Term Basis: In situations where time passes quickly, personal survival or subsistence costs can be assumed to be the values given below:

Starvation Level: bare minimum of food, Cr60 per month; dismal lodging, Cr60 per month.

Subsistence Level: reasonable food, Cr120 per month; acceptable lodging, Cr180 per month.

Ordinary Level: good food, Cr200 per month; good lodging, Cr200 per month.

High Living: excellent food, Cr600 per month; excellent accommodations, Cr300 per month.

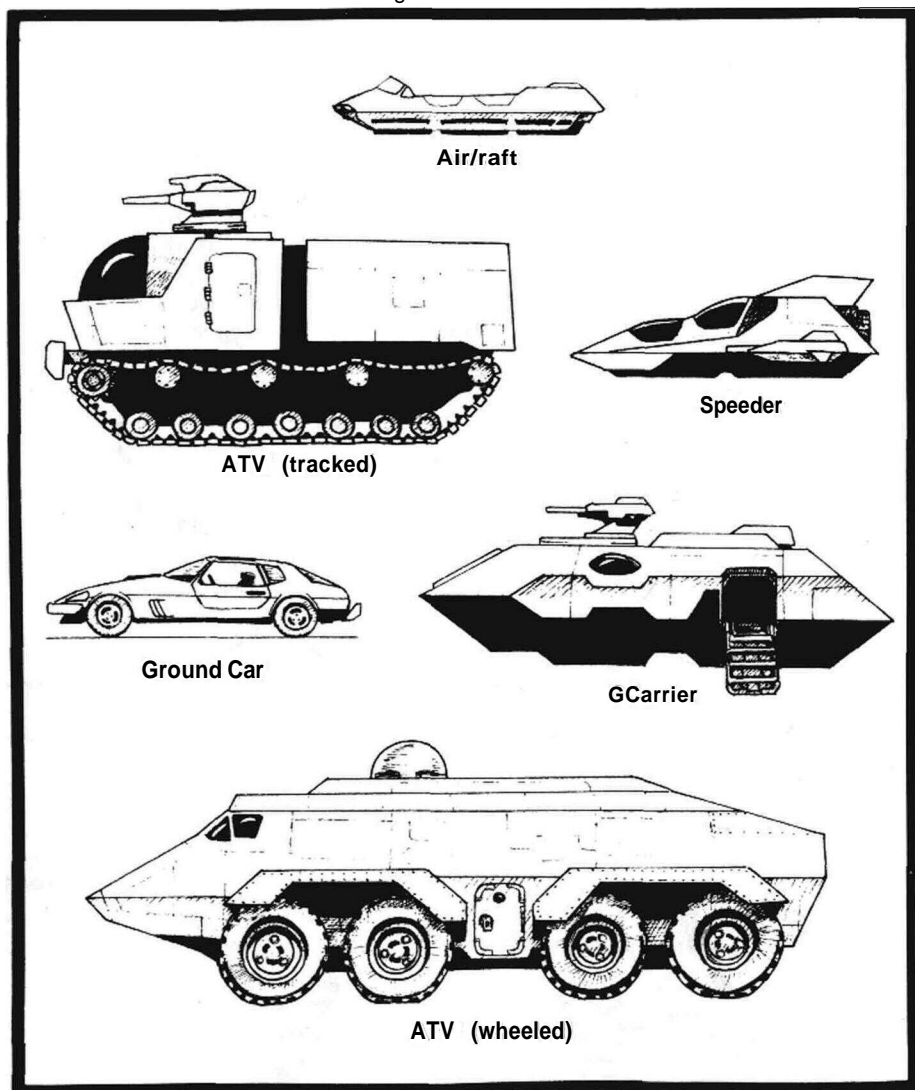
Starships: Passengers and crewmembers have their food and lodging provided.

VEHICLES

Various forms of transportation will be required by adventurers as they travel away from the starport of a world. The following are general guidelines for the use of various vehicles.

Primitive Transportation: On worlds with low technology levels (0 through 3), the local means of transportation will tend to depend on beasts of burden, animal drawn carts, and watercraft such as galleys and sailing ships. Prices for such items will depend on local situations: animals and wagons are priced in hundreds of credits; ships are priced in the thousands and tens of thousands of credits.

Local beasts of burden and riding animals will be domesticated herbivores similar



to animals in local encounter tables and generally of the 200 or 400 kilogram range or above. Note that low passage berths can be used to carry an animal of up to 400 kilograms if characters wish to bring along their own riding beasts to a particular world.

Modern Transportation: There are six classes of modern planetary transportation: ground cars, hovercraft, winged craft, grav vehicles, grav belts, and watercraft. The grav belt and hovercraft classes have only one member; the rest have several. All require skill to operate. Grav vehicles require air/raft skill. ATVs and AFVs (two vehicles in the ground car class) require ATV skill. All others require vehicle skill, of a type specific to the individual vehicle. When vehicle skill is selected it must be assigned to any one of the vehicles listed below (including ATV but not any grav vehicle). Any specific vehicle skill can be used to operate other vehicles in the same class at skill level minus one. For example, if a player possesses helicopter skill at level-2, he could fly fixed wing or primitive biplane aircraft at skill level-1.

Ground Cars: This class includes all wheeled or tracked vehicles. Persons with ATV skill may operate AFVs at their full skill levels. Any character may operate any ground vehicle at slow speeds and under non-dangerous conditions without possessing any skill.

When characters use ground vehicles, the referee should note some specific throws which will govern their use. Throw 11+ for mechanical difficulty or failure, allowing DMs for personal expertise, terrain, and perhaps age and condition of the vehicle. Throw 11+ for terrain difficulty, or include such items on animal encounter tables for the current world surface. Note that local law level can be used as the throw (law level +) to avoid such things as speed traps or traffic violation arrests.

The following are a few common examples of ground vehicles:

Ground Car (5) Cr4,000, 2 tons. An ordinary self-powered wheeled vehicle suitable for local use in civilized areas or on roads. Typically, a ground car has a range of 1000 km, cruises at 100 kph, and has a maximum speed of 150 kph. If capable of off-road travel at all, speed is generally limited to 10 kph. Fuel for a ground car depends on local tech level and fuel sources; it is usually chemical fuel (hydrocarbons or hydrogen), or electric battery. Most ground cars require a driver, although at higher tech levels the car will steer itself (and on highly civilized worlds driving under human control is illegal in cities). A car can carry five additional passengers plus luggage. Other models (convertibles, sports models, limousines, trucks, motorcycles, unicycles, vans, etc.) may be available at varying prices. The basic ground car is unpressurized. Ground cars are mass production items manufactured for a specific world; they will tend to malfunction when transferred to a world not similar to their world of origin.

All Terrain Vehicle (6) Cr30,000, 10 tons. A wheeled or tracked vehicle intended for world surface exploration, or for transport across undeveloped areas. An all terrain vehicle (abbreviated ATV) has a range of 5000 km, cruises on roads at 60 kph, and can achieve a maximum speed of 100 kph. Off roads, speed depends on terrain; on open plain, it will approach normal road performance, while in difficult terrain, maximum speed will be 20 kph or less. Tracked ATVs are somewhat slower than wheeled versions, but are also more reliable in difficult terrain. An ATV may be powered by a battery recharged from a ship's power plant, or it may contain a small fusion pack, requiring hydrogen or water for fuel. The ATV is designed to serve admirably on many different worlds under widely varying con-

ditions, including vacuum and insidious atmospheres, and high or low gravity. An ATV requires one driver. Passengers can number up to 16; the vehicle is fully pressurized and contains complete (though cramped) eating, sleeping, and travel facilities for eight. The vehicle may be lightly armored, and can carry a turret mounting a laser or other local combat weapon.

Armored Fighting Vehicle (6) 070,000, 10 tons. A tracked or wheeled vehicle reinforced with armor and heavily armed for combat. The armored fighting vehicle (abbreviated AFV) is very similar to the ATV in performance, range, and fuel requirements. However, the AFV is armored to withstand most forms of attack, and is equipped with a turret mounting a laser or other weapon. A crew of three (one with ATV skill, one with gunnery skill, and one with no skill required) is called for, with little or no interior facilities provided. No provision for passengers or cargo is made.

Hovercraft (7) Cr200,000, 8 tons. Ground effect vehicles are supported on a cushion of air (at about 1 to 3 meters altitude). Usable only on worlds with an atmosphere of 4 or greater, hovercraft are capable of cruise speeds of 60 kph, with bursts of speed to a maximum of 150 kph. Distance between refuelings is 2000 km. Hovercraft may move over both land and water with equal ease, but encounter difficulty with broken ground, precipices, or storms. A crew of one is sufficient to operate the vehicle; hovercraft can carry up to 15 passengers plus operator. Cargo capacity is approximately 3 tons. No armor or weaponry is generally provided.

Winged Craft: Winged aircraft generate lift by passing air over wing-surfaces, either fixed or rotating. They are usable only on worlds with atmospheres of 4+. Although true winged craft appear only at tech level 5, engineless gliders may be constructed as far back as tech level 0, becoming fairly common at tech level 3.

Winged vehicles require frequent maintenance between uses in order to insure reliable performance. The basic throw for some malfunction is 11+, DM +1 for each missed maintenance.

The following are some sample winged craft.

Primitive Biplane Aircraft (5) Cr200,000, 1 ton. A very small early model aircraft. It can achieve a cruise speed of 150 kph, with bursts to a maximum of 200 kph; range is three hours flying time. The biplane's engine depends on chemical fuel. The biplane carries two persons (a pilot and a passenger) and 100 kg of cargo.

Fixed Wing Aircraft (6) Cr1,000,000, 5 tons. A twin jet aircraft monoplane intended for cargo transport. The plane cruises at 600 kph (maximum speed is 700 kph) with a range of 3600 km or six hours. Fuel is standard chemical jet fuel. The craft requires a crew of two (only one of whom needs aircraft skill) and can carry six passengers, plus five tons of cargo. Typical wingspan: 15 meters; typical length: 15 meters. Other versions of this aircraft are possible, including seaplanes, armed models, larger versions, or faster types.

Helicopter (6) Cr100,000, 1 ton. Single engine rotary wing aircraft capable of vertical take-off and landing as well as maneuverability in tight places. The helicopter can cruise at 200 kph with a top speed of 250 kph; range is 600 km. The helicopter requires a crew of 1 and can carry 7 passengers and 500 kg of cargo.

Grav Vehicles: Grav vehicles are the main transportation of a high technology society. Beyond tech level 10, other vehicle types are rarely seen except in a few specialized situations. All grav vehicles are essentially similar in handling characteristics, and air/raft skill allows its possessor to pilot any grav vehicle. The speeder is

somewhat of an exception; if flown at or near its cruising speed, the pilot uses air/raft skill minus 1; if flown slowly (at the speed of an air/raft) there is no subtraction. Grav vehicles work in any environment and are all capable of reaching orbit (eventually).

Air/Raft (8) O600,000, 4 tons. A light anti-gravity vehicle which uses null-grav modules to counteract gravity for lift and propulsion. An air/raft can cruise at 100 kph (but is extremely subject to wind effects), with some capability of higher speed to about 120 kph. An air/raft can reach orbit in several hours (number of hours equal to planetary size digit in the UPP); passengers must wear vacc suits and interplanetary travel in an air/raft is not possible. Range in time or distance on a world is effectively unlimited, requiring refueling from a ship's power plant every ten weeks or so. An air/raft can carry four persons plus four tons of cargo. The air/raft is unpressurized and usually open-topped.

GCarrier (8) Cr1,000,000, 8 tons. An enclosed military or quasi-military grav vehicle. The GCarrier is an armored air/raft type vehicle intended originally for troop carrier duties. Performance is similar to that of the air/raft, but the vehicle generally has a gun mount and an armored rear hatch door. It requires a crew of one (with air/raft skill), plus a gunner for the craft's weapon, if any. It can carry 14 persons (including the driver and gunner), plus 2 tons of cargo (or assume 250 kg cargo for each person not carried; thus driver, gunner, and 5 tons cargo).

Speeder (8) Cr1,000,000, 6 tons. A streamlined grav-powered craft intended for high speed transport between points on a world surface. Similar in principle to the air/raft and the GCarrier, the speeder is streamlined and concentrates on speed. It is capable of 1000 kph cruise speed (maximum speed is 1200 kph), and has a virtually unlimited range. Refueling is required every ten weeks from a ship's power plant. The speeder carries a driver (who operates the craft at air/raft skill minus 1), a single passenger, and 100 kg of cargo. The speeder is capable of reaching orbit within an hour.

Grav Belt (12) Cr100,000, negligible weight if on; 10 kg if turned off. Personal anti-gravity transportation using a single null-gravity module and a personal harness. Performance is similar in speed and range to the air/raft.

Water Vehicles: Water craft require only one skilled crewmember if under 50 tons displacement. Larger vessels and all ships require several trained crew.

Small Steamship (4) Cr60,000, 100 tons. Vessels of this type vary widely; most are capable of 30 kph for sustained periods. Fuel is some form of basic combustible. The ship can carry a crew of five, ten passengers, and 50 tons of cargo.

Motor Boat (5) Cr60,000, 60 tons. Advanced small craft utilizing hydrofoils to allow high speed performance. The motor boat can cruise at 60 kph, with bursts of speed to 100 kph. The ship's engines depend on local fuel sources, such as hydrocarbons or electric batteries. A crew of three operates the craft, which carries eight passengers and 10 tons of cargo.

Submersible (6) Cr2,000,000, 500 tons. Underwater vessels intended to avoid surface weather conditions for safety and convenience. On worlds with large water percentages (especially level A) submersibles ply the routes between underwater domed cities. The submersible is capable of 40 kph cruising underwater, and about half that on the surface in good weather. It has unlimited endurance, and depends on local energy sources for refueling or recharging. It has a crew of five and provision for ten passengers and 30 tons of cargo.

Encounters

Non-player characters (abbreviated NPC) are frequently encountered by travellers in the course of their adventures. They are the persons manipulated or controlled by the referee; their actions and deeds influence and direct the activities of the actual player-characters in the game.

Encounters with non-player characters are of three general types: ordinary or routine encounters, random encounters, and encounters with patrons. When an encounter occurs, the identity or occupation of the encountered person or group is determined, their reaction to the adventurers is noted from the reaction table, and the players then indicate their activity in response.

Encounters with non-player characters serve as a vehicle for direction and input by the referee. They can offer information or assistance if their reaction is appropriate. They can hinder or redirect adventurers through the use of threat or violence. Encounters also serve as a method for players to gain comrades, weapons, vehicles, or assistance where necessary.

Routine Encounters: Adventurers meet ordinary people in the course of ordinary activity. In many cases, adventurers actually ignore the persons (and are themselves little noticed), concentrating on the activity instead. Personal reactions are rarely of importance, and the individual merely performs his duties. For example, an encounter with a store clerk in the course of buying equipment is rarely of importance, and the process usually continues without trouble.

RANDOM ENCOUNTERS

Adventurers, as they travel about on planets, also have random encounters with an unpredictable variety of individuals or groups. Such individuals are themselves performing various tasks, which may complement, supplement, oppose, or be irrelevant to the goals of the adventurers themselves.

Some random encounters are mandated by the referee. For example, a band may encounter a guard patrol at a building while in the course of visiting (or burglarizing) it. The referee is always free to impose encounters to further the cause of the adventure being played; in many cases, he actually has a responsibility to do so. Other random encounters are dictated by the random encounter process. Usually, a random encounter point with humans will occur once per day. There is a one third chance that a group will be met (throw one die: a result of 5 or 6 indicates an encounter). Encounters with persons are independent of the procedure for encounters with animals described in the animal encounter section.

If a random encounter occurs, consult the person encounter table to determine the identity or occupation of the person or group encountered. Throw two dice consecutively, and index the result to the table. Indicated on the table are a **basic** description or identity for the encountered individuals, a dice throw to determine their number, an indication of their vehicle, if any, and a description of their weaponry and armor.

After determining the number in the group, roll two dice three times to determine respectively the strength, dexterity, and endurance of the people in the group.

Generally, it may be assumed that all individuals in an encountered group have the same characteristics. Later, it may prove necessary to determine the intelligence, education, and social standing of the individuals in the group; such data is not actually necessary upon initial encounter.

In addition to the weapons indicated on the table, there is a possibility that one of the group's members will be armed extraordinarily. Consult the additional weapons table: throw one die for column 1. If a weapon is shown, one person is armed with it; if a dash is shown, re-roll on column 2. If a weapon is shown, one person is armed with it; if a dash is shown, re-roll on column 3. If a weapon is shown, one person is armed with it; if a dash is shown, no extraordinary weapons are present. Weapon skill is generally considered to be 1 for all encountered persons.

Six entries in the person encounter table are left blank; initially, they may be interpreted as no encounter. Later, they may be filled in by the referee for specific situations, as necessary.

Once an encounter occurs, a determination of attitude is made using the reaction table (later in this section). Combat may ensue. Under the provisions of the personal combat section of Book 1, it is possible for either group to escape or avoid contact. After an encounter has been resolved, there is the potential for small amounts of money to be on the persons (or bodies) of the vanquished. It is also possible to loot the vanquished of their equipment, vehicles, weapons, or armor.

PATRONS

The key to adventure in **Traveller** is the patron. When a band of adventurers meets an appropriate patron, they have a person who can give them direction in their activities, and who can reward them for success. The patron is the single most important NPC there can be.

A patron will, if he decides to hire a band of adventurers, specify a task or deed to be performed, and then finance reasonable expenses for the pursuit of that task. Some tasks may be ordinary in nature, such as hired guards or escorts; other tasks may be for the location and procurement of items of great value. Generally, a patron's agreement with a band of adventurers will specify that the patron will receive the item he is seeking while all other goods or items acquired will belong to the adventurers.

In a single week, a band of adventurers may elect to devote their time to encountering a patron. They may frequent bars, taverns, clubs, perhaps the Travellers' Aid Building, or any other likely places. One throw is allowed for the entire band: a result of 5 or 6 on one die indicates a likely patron has been found. Two dice are then thrown consecutively, and the patron table is consulted to determine the general character of the potential patron. If necessary, the patron's personal characteristics are generated at this point. The band then meets with the patron, and an interview takes place. Throw two dice on the reaction table to determine if the patron concludes that the band will be suitable (generally, a throw of 7+ on the reaction table is sufficient). The patron then discloses his task, and the adventurers may accept or reject the offer of employment.

Once the patron and the adventurers have met, the responsibility falls on the referee to determine the nature of the task the patron desires, the details of the situation (perhaps a map or some amount of information), and the limits of the patron's resources in the pursuit of the task.

RANDOM PERSON ENCOUNTERS

<i>Die</i>	<i>Type</i>	<i>Qty</i>	<i>V</i>	<i>Weaponry</i>	<i>Armor</i>
11	Peasants	1D	-	Clubs and cudgels	—
12	Peasants	2D	-	Clubs and cudgels	—
13	Workers	2D	-	Clubs	—
14	Rowdies	3D	-	Clubs	—
15	Thugs	2D	-	Daggers	—
16	Riotous mob	4D	-	Clubs and daggers	—
21	Soldiers	2D	-	Rifles and bayonets	Cloth
22	Soldiers	2D	V	Carbines	Mesh
23	Police patrol	1D	V	Automatic pistols	Cloth
24	Marines	2D	V	Revolvers and cutlasses	Mesh
25	Naval security troops	3D	V	Carbines	—
26	Soldiers on patrol	2D	V	Submachineguns	Jack
31	Adventurers	1D	-	Swords	—
32	Noble with retinue	2D	-	Foils	—
33	Hunters and guides	2D	-	Rifles and spears	Jack
34	Tourists	2D	V	Cameras	—
35	Researchers	2D	V	—	—
36	Police patrol	1D	V	Revolvers	—
41	Fugitives	1D	-	Clubs	—
42	Fugitives	2D	V	Blades	Jack
43	Fugitives	3D	-	Revolvers	—
44	Vigilantes	2D	V	Rifles and carbines	Jack
45	Bandits	3D	-	Swords and pistols	—
46	Ambushing brigands	3D	-	Broadswords and pistols	Cloth
51	Merchant and employees	1D	-	Daggers	—
52	Traders	2D	V	Blades	—
53	Religious group	2D	-	—	—
54	Beggars	1D	-	—	—
55	Pilgrims	5D	-	—	Jack
56	Guards	3D	-	Halberds and daggers	Jack
61					
62					
63					
64					
65					
66					

ADDITIONAL WEAPONS

	1	2	3
1	Laser rifle	Shotgun	Broadsword
2	Auto rifle	Carbine	Sword
3	—	Revolver	Halberd
4	—	—	Cutlass
5	—	—	Foil
6	—	—	—

Notes to Random Person Encounters

The code V in the V column indicates that the group has a vehicle appropriate to the technology of the world and the terrain of the area.

Group numbers and their weaponry should be adjusted for law level, tech level, and balance where necessary.

PATRON ENCOUNTERS

1	2	3	4	5	6
1 Arsonist	Cutthroat	Assassin	Hijacker	Smuggler	Terrorist
2 Crewperson	Peasant	Rumor	Clerk	Soldier	Shopkeeper
3 Shipowner	Tourist	Merchant	Police	Scout	Rumor
4 Diplomat	Courier	Spy	Scholar	Governor	Administrator
5 Mercenary	Naval	Marine	Scout	Army	Mercenary
6 Noble	Playboy	Avenger	Emigre	Speculator	Rumor

Note: Rumors are, in effect, absent patrons. They impart knowledge which may be acted on by characters if they so choose.

Employees and Hirelings: When travellers themselves require employees, for any purpose, they must find them in the course of their activities. This may require advertising, visiting union hiring halls, or active efforts in barrooms or clubs. Hiring is done by stating a requirement to the referee, who indicates persons presenting themselves for employment. The interview consists of generating the person's characteristics and experience. While decisions to hire are made on qualifications, the number of persons applying for employment may be limited.

NON-PLAYER CHARACTER REACTIONS

When non-player characters are encountered, their reactions will dictate their activity in terms of business deals, violence, assistance, charity, cooperation, and a number of other actions. When an encounter occurs, throw two dice and consult the reaction table. Dice throws of 2 and 12 (exactly) are not subject to DMs; any other result is subject to DMs, modified results of less than 3 becoming 3 and greater than 12 becoming 12.

The following general DMs apply; others may be called for by a specific situation. If a character has served 5 or more terms in the army, navy, marines, or scouts, DM +1. If planetary population is 9 or greater, DM -1.

Reaction throws are made upon initial encounter, and one throw determines the reaction of an entire group.

Reactions are used by the referee and by players as a guide to the probable actions of individuals. They determine responses to business offers or deals (admin or bribery expertise serves as a DM). Reactions govern the reliability and quality of hirelings and employees. Generally, they would re-roll reactions in the face of bad treatment or dangerous tasks.

REACTIONS

<i>Die</i>	<i>Reaction</i>
2	Violent. Immediate attack.
3	Hostile. Attacks on 5+.
4	Hostile. Attacks on 8+.
5	Hostile. May attack.
6	Unreceptive.
7	Non-committal.
8	Interested.
9	Intrigued.
10	Responsive.
11	Enthusiastic.
12	Genuinely friendly.

Animal Encounters

Animals in any ecological system interact with each other, forming food chains, obeying instincts, defending territory, and generally living out their lives. When people enter such an ecological system, they will encounter the animals of the system, prompting natural reactions, such as attack or flight.

Although the precise nature of animals may change, and they may prove quite alien to ordinary experience, most will conform to the broad classifications given below. A referee may choose to establish his own ecological system on a specific world, ignoring the encounter system outlined here. This system, however, is intended to allow broad latitude in both animal types and attack/defense mechanisms, while remaining essentially logical and reasonable.

Animal Types: Nearly all animals may be classified into four basic categories: herbivore, omnivore, carnivore, and scavenger. Specific definitions for these terms are provided in a later section of these rules, and differ from the precise scientific definitions in current use. Within each category, a variety of animal types exist, based on specific feeding/hunting habits; examples of this concept are grazers, chasers, and pouncers.

Animals which are encountered may be classified into various categories and types, and specific attack and defense mechanisms determined. The resulting description indicates the actions an animal will take without resorting to such confining labels as bear or tiger. While a referee may well elect to use such names, this system also allows the players freedom to encounter truly alien beasts as well.

PROCEDURE

The referee must create a series of unique encounter tables, one set for each world in the universe (not necessarily all are necessary before play begins). Each set consists of one encounter column for each relevant terrain type of the world. Generally, a referee will conceal the exact details of these encounter columns, so that persons will only have clues as to the relative abundance or scarcity of specific animals in any specific area.

Once these tables are created, they are used each day to determine if animals are encountered, the specific nature of such animals, and how they react to the adventurers. Hunting for sport or food is possible, and danger posed by animals may be great.

CREATING ENCOUNTER TABLES

Initially, the referee must prepare a blank encounter column for each terrain type on the world. The terrain DMs chart indicates the general types of terrain which might be expected on the worlds to be visited. The referee should determine if the encounter table will use one die or two; two dice tables are more complex, and should be selected for terrain or worlds that will be frequently used, while one die tables are for worlds or terrain types which do not merit detailed representation. The examples of blank encounter tables shown indicate the predetermined sequences of animal categories which should be used in most cases; these sequences may be

varied by the referee to fit specific situations or world conditions.

Once the encounter table format has been decided upon, the referee notes the terrain type for the table, and consults the terrain types table. Any applicable DMs are recorded. The referee refers to the animal types table and rolls two dice for the animal category involved. The result is the animal type for the entry. The special attributes table is consulted to determine if the animal has any special attributes, such as flying or swimming. The animal sizes and weaponry table is consulted to determine the animal's size, wound potential, weaponry, and armor. Finally, the characteristics table is consulted to note the animal's predisposition to attack or flee, and its speed.

When events are called for on the encounter table, the referee should insert an event from those described in these rules, or generate additional events appropriate to the situation.

Special Attributes: Animals which adventurers will encounter will tend to be walkers, but may be flyers, swimmers, amphibians, or even triphibians. Throw two dice and consult the special attributes table. DMs are imposed for various world sizes and atmospheres. Insure that the correct terrain column is used on the table. Four special attribute types are possible on the table:

Flyers: Animals capable of flying through the use of wings, levitating gas sacs, or other mechanisms.

Swimmers: Animals living in liquid and swimming through the use of fins, flippers, jets, or other mechanisms.

Amphibians: Animals living in liquid, but capable of emerging onto land.

Triphibians: Animals living in liquid, but capable of walking on land and flying in the air.

Certain entries on the table are followed by a parenthetical DM which must be applied to the animal size throw; its general effect is to make flyers smaller and swimmers larger. Note the special attribute (if any) on the blank encounter column being filled in. Record any size DM temporarily for use in the size throw to come.

Animal Size: Animals range in size from small (massing about 1 kilogram) to giant (massing 6 tons or greater), and exhibit a variety of characteristics related to size. Throw two dice and consult the weight, hits, and wounds columns of the animal size and weaponry table (rolling only once for all three). DMs are imposed on this throw based on planetary size, the terrain DM chart (by specific terrain type), and as required by special attributes, if present.

Animal size is expressed on the table in kilograms, and may be taken as a general indication of size in relation to humans (a human is assumed to be approximately 100 kilograms). All sizes may be construed to cover a range of plus or minus 20%.

Animal Hits: The hits column indicates the number of hits an animal can take, expressed as a dice throw. When an animal has received wounds equalling or exceeding the first dice throw, the animal is considered to be unconscious. When it has received wounds equalling or exceeding its total hits, it is dead. If an animal receives wounds equal to twice its hits, it is destroyed, and has lost any food or pelt value. For example, an animal listed on the animal size and weaponry table as taking 2D/2D hits would have two dice rolled twice: the first result would be the number of hits required to render the animal unconscious. The second two-dice throw would indicate the additional hits required to kill the animal. If more than twice this combined value is achieved, the animal is completely destroyed.

Animal Wounds: The wounds column indicates the general effect of size on an animal's ability to cause damage when it hits. The formula is noted and applied to the effects of the animal's weapons when they are determined. If, for example, the animal has teeth as its weapons, then the weapons range matrix in Book 1 states that teeth inflict 1D hits when they hit. A wound alteration of -2D indicates that the referee should roll 2D and subtract that from 1D to determine the actual number of hits inflicted. If the wound alteration is +4D, then the teeth will inflict 1D + 4D hits. If the wound alteration is x4, then the teeth will inflict 1 D x4 hits. The result is that of two animals armed with the same weapon, the larger will inflict a heavier wound. For simplicity, the damage dice should be rolled once when the animal is generated; the animal would inflict that number of hits every time it hits. A roll of 0 or less equals 1; an animal always has the ability to do some damage. If the referee wishes to take the trouble, he can roll the proper number of dice every time the animal hits; in this case, a roll of 0 or less would equal 0.

Animal Weaponry: Animals are naturally equipped with weapons which enable them to attack and defend. Familiar terms such as teeth and claws indicate the effects in the combat system, but should also be considered to approximate other equivalent systems if necessary. Entries such as teeth+1 indicate a DM to the combat roll of the weapon, making it more effective. In some cases, unusual weaponry is indicated by the statement as *[weapon type]*, for example as *pike*. The combat effect may be read from the weapons matrix (and wounding from the range matrix) of the personal combat system of Book 1. Weapon types should always be considered to be descriptive of result rather than of strict process.

Throw two dice and consult the animal weapons column. Implement DMs as indicated on the table.

Animal Armor: Some animals have armor in some form, protecting them from attacks by other animals. Armor is intended to indicate the general effectiveness of the armor, not its specific construction. Entries such as battle+4 indicate DMs to the combat die roll, making the armor less effective.

Throw two dice and consult the animal armor column. Implement the DMs as indicated on the table.

Animal Characteristics: Because animals have predispositions to attack or to flee, these details must be noted on the animal encounter table for each specific type presented. These characteristics are noted in the form of three codes in the table: A, F, and S. Each is followed by a number which indicates the throw involved.

A indicates attack predisposition. A7 would indicate that the animal will attack on a throw of 7+. The number 0 indicates a special case, and the animal will attack if it meets certain criteria for its type.

F indicates predisposition to flee. F7 would indicate that the animal will flee on a throw of 7+. The number 0 is a special case, and the animal will flee if certain criteria for the animal type are met.

S indicates speed. S0 indicates that the animal is immobile. S1 indicates normal or ordinary speed; S2 indicates double speed; S3 indicates triple speed.

The animal characteristics table states how to derive these three characteristics.

Referee's Additions: The referee may invent new animal characteristics within this system. Larger or smaller animals may be invented, extrapolating from the system presented. Other animal weaponry and armor types may be invented; the easiest to implement are those already found on the weapons matrix, with or with-

out DMs, such as cloth-1, ablat+1, as foil, stinger-1, and so on.

Animals may also be provided with more complex motivations than the simple dice rolls for attack and flight. The descriptions on pages 36 and 37 will prove helpful. Carnivores will base their decisions on the sizes of the party and of individuals; humans may resemble a carnivore's natural prey, and so on. Large herbivores will be less likely to flee than small ones, tending to ignore a party unless it gets too close. Any animal may attack if the party threatens its young, nest, territory, meal, etc.

Other responses are possible beyond attack or flight. A carnivore may stalk a party, hoping to attack an isolated member. An armored animal may curl up into a ball or withdraw its extremities into its shell. There may be responses analogous to those of the opossum or skunk. An animal may be friendly or want to play — it might even mistake a party for members of the opposite sex.

Common Sense: Airless worlds will almost never have life of any consequence on them; if they do, animal life will still tend to follow the same broad outlines given above. Still, flyers and liquid breathers will be almost non-existent.

The referee should always be prepared to alter or restrain prescribed procedures if it is felt that they contravene logic or reason.

USING THE ENCOUNTER TABLES

Each day, an adventuring band may possibly have one or more encounters with some animal life forms. As a general rule, the referee will check for an encounter once while the band is travelling and once while the band is halted (for rest, exercise, encampment, or whatever). There is a one-third chance (throw 5 or 6 on one die) that an animal encounter will occur in any of the specified terrain types. Referee-initiated modifications to this frequency may be instituted to cover greater or smaller probabilities based on planetary or local conditions.

In addition, specific encounters at specific locations are always possible. For example, the referee may already have populated a location (perhaps a ruin) with specific animals. These are not subject to normal random encounter rules.

Procedure: Twice each day, the referee will throw to determine if an encounter occurs. If a band splits temporarily, each portion of the band should be liable for an independent encounter. When an encounter does occur, the correct (based on terrain type) encounter column is then used to ascertain the class, type, quantity, and characteristics of the animal encountered (in some circumstances the encounter column may indicate that a non-animal event has been encountered instead). The encounter is resolved using the personal combat procedure of Book 1.

Special Effects: Animal encounters constitute the only general possibility of access that characters have to food, furs, or other valuable items. Guides may be hired or present for the purpose of assisting in the location of specific animals, contributing a DM of +2 or greater to influence encounter throws for a specific type of animal. Animals are usually edible (throw 5+ to be edible, DM -3 if the atmosphere is tainted) provided the planetary atmosphere is between 2 and 9, and the animal does not have a poison weapon. Otherwise, the animal is inedible. From 5% to 30% (throw one die times 5%) of an animal's weight will be edible meat. A person requires 1 kilogram of meat per day when living off the hunt.

Animal Descriptions: The referee may elect to describe animals in order to allow a better image in the adventurers' minds. The basic system may be used without this aspect, but descriptions such as lion-like, ameboid, etc. may prove useful.

TERRAIN TYPES

<i>Terrain Type</i>	<i>Terrain Equivalent</i>	<i>Type DM</i>	<i>Size DM</i>
Clear	Road, Open	+3	—
Prairie	Plain, Steppe	+4	—
Rough	Hills, Foothills	—	—
Broken	Badlands	-3	-3
Mountain	Alpine	—	—
Forest	Woods	-4	-4
Jungle	Rainforest	-3	-2
River	Stream, Creek	+1	+1
Swamp	Bog	-2	+4
Marsh	Wetland	—	-1
Desert	Dunes	+3	-3
Beach	Shore, Sea Edge	+3	+2
Surface	Ocean, Sea	+2	+3
Shallows	Ocean, Sea	+2	+2
Depths	Ocean, Sea	+2	+4
Bottom	Ocean, Sea	-4	—
Sea Cave	Sea Cavern	-2	—
Sargasso	Seaweed	-4	-2
Ruins	Old City	-3	—
Cave	Cavern	-4	+1
Chasm	Crevass, Abyss	-1	-3
Crater	Hollow	—	-1

ENCOUNTER COLUMNS

<i>— 2 Dice Column-Die</i>	<i>Category</i>	<i>— 1 Die Column-Die</i>	<i>Category</i>
2 S	Scavenger	1 S	Scavenger
3 O	Omnivore	2 H	Herbivore
4 S	Scavenger	3 H	Herbivore
5 O	Omnivore	4 H	Herbivore
6 H	Herbivore	5 O	Omnivore
7 H	Herbivore	6 C	Carnivore
8 H	Herbivore		
9 C	Carnivore		
10 E	Event		
11 C	Carnivore		
12 C	Carnivore		

These two encounter column formats are suggestions; the referee may develop other such columns with different arrangements if desired.

The referee should construct one table for each terrain type of each world.

Events: Events may be included on encounter tables as desired by the referee. They should be administered to further the current adventure.

ANIMAL TYPES

<i>Die</i>	<i>Herbivore</i>	<i>Omnivore</i>	<i>Carnivore</i>	<i>Scavenger</i>
0	Filter (1D)	Gatherer	Siren	Carrion-eater (1 D)
1	Filter	Gatherer	Pouncer	Carrion-eater (2D)
2	Filter	Eater	Siren	Reducer (1D)
3	Intermittent	Gatherer	Pouncer	Hijacker (1D)
4	Intermittent	Eater (2D)	Killer (1D)	Carrion-eater (2D)
5	Intermittent (1D)	Gatherer	Trapper	Intimidator (1D)
6	Intermittent	Hunter	Pouncer	Reducer
7	Grazer	Hunter (1D)	Chaser	Carrion-eater (1 D)
8	Grazer (1D)	Hunter	Chaser (3D)	Reducer (3D)
9	Grazer (2D)	Gatherer	Chaser	Hijacker
10	Grazer (3D)	Eater (1D)	Killer	Intimidator (2D)
11	Grazer (2D)	Hunter (1D)	Chaser (2D)	Reducer (1D)
12	Grazer (4D)	Gatherer	Siren	Hijacker
13	Grazer (5D)	Gatherer	Chaser (1D)	Intimidator (1D)

Throw two dice on this table (as modified by the type DMs from the terrain types table) to determine the animal type for a specific encounter column entry. Dice throw shown for each type indicates the quantity encountered; no throw indicates one animal encountered.

ANIMAL ATTRIBUTES

Die	Beach	Marsh	River	Sea	Swamp	Other
2	S +1	S -6	S +1	S +2	S -3	—
3	A +2	A +2	A +1	S +2	A +1	—
4	A +2	A +1	—	S +2	A +1	—
5	—	—	—	A +2	—	—
6	—	—	—	A	—	—
7	—	—	—	S +1	—	—
8	—	—	—	S -1	—	—
9	—	—	—	T -7	—	—
10	—	—	—	T -6	—	F -6
11	F -6	F -6	F -6	F -6	F -6	F -5
12	F -5	F -5	F -5	F -5	F -5	F -3

Roll 2D to determine special attributes and size DM for the specific animal type. DMs to this table: if planetary size 9+, -1; 5 or 4, +1; 3-, +2; if atmosphere 8+, +1; 5-, -1. The abbreviation shows the attribute, if any. The number is a size DM to be used in addition to the DM from the terrain types table (for flyers the DM from this table is the only one used). A= Amphibian, F= Flyer, S= Swimmer, T= Triphibian.

ANIMAL SIZES AND WEAPONRY

Die	Weight	Hits	Wounds	Weapons	Armor
1	1	1D/0	-2D	hooves and horns	(+6)
2	3	1D/1D	-2D	horns	—
3	6	1D/2D	-1D	hooves and teeth	—
4	12	2D/2D	—	hooves	jack
5	25	3D/2D	—	horns and teeth	—
6	50	4D/2D	—	thrasher	—
7	100	5D/2D	—	claws and teeth	—
8	200	5D/3D	+1D	teeth	—
9	400	6D/3D	+2D	claws	—
10	800	7D/3D	+3D	claws	jack
11	1600	8D/3D	+4D	thrasher	—
12	3200	8D/4D	+5D	claws and teeth	(+6)
13	(+6)	(+6)	(+6)	claws+1	mesh+1
14	6000	9D/4D	x2	stinger	cloth+1
15	12000	10D/5D	x2	claws+1 and teeth+1	mesh
16	24000	12D/6D	x3	teeth+1	cloth
17	30000	14D/7D	x4	as blade	battle+4
18	36000	15D/7D	x4	as pike	reflec
19	40000	16D/8D	x5	as broadsword	ablat
20	44000	17D/9D	x6	as body pistol	battle

Roll once for size/hits/wounds and once each for weapons and armor. If the result is (+6), roll again with an added DM of +6. If (+6) is rolled again, just reroll.

Animal Size DMs: As noted on special attributes and terrain types tables. If planetary size 8+, DM -1; if planetary size 4-, DM +1.

Animal Weaponry DMs: If carnivore, +8; omnivore, +4; herbivore, -3.

Animal Armor DMs: If carnivore, -1; scavenger, +1; herbivore, +2. Flyers and triphibians never have armor.

ANIMAL CHARACTERISTICS

<i>Category Type</i>	<i>To Attack</i>	<i>To Flee</i>	<i>Typical Speed</i>
Herbivores			
Filter	If possible	1D+2 (3-8)	1D-5 (0-1; minimum 0)
Intermittent	1D+3 (4-9)	1D+3 (4-9)	1D-4 (1-2; minimum 1)
Grazer	1D+2 (3-8)	1D+0 (1-6)	1D-2 (2-4; minimum 2)
Omnivores			
Gatherer	1D+3 (4-9)	1D+2 (3-8)	1D-3 (1-3; minimum 1)
Hunter	1D+0 (1-6)	1D+2 (3-8)	1D-4 (1-2; minimum 1)
Eater	1D+0 (1-6)	1D+3 (4-9)	1D-3 (1-3; minimum 1)
Carnivore			
Pouncer	If surprise	If surprised	1D-4 (1-2; minimum 1)
Chaser	If more	1D+3 (4-9)	1D-2 (2-4; minimum 2)
Trapper	If surprise	1D+2 (3-8)	1D-5 (0-1; minimum 0)
Siren	If surprise	1D+3 (4-9)	1D-4 (0-2; minimum 0)
Killer	1D+0 (1-6)	1D+3 (4-9)	1D-3 (1-3; minimum 1)
Scavenger			
Hijacker	1D+1 (2-7)	1D+2 (3-8)	1D-4 (1-2; minimum 1)
Intimidator	1D+2 (3-8)	1D+1 (2-7)	1D-4 (1-2; minimum 1)
Carrion-Eater	1D+3 (4-9)	1D+2 (3-8)	1D-3 (1-3; minimum 1)
Reducer	1D+3 (4-9)	1D+2 (3-8)	1D-4 (1-2; minimum 1)

This table indicates the behavior which may be expected of any specific animal. Determine animal category and type. Roll once in each column (to attack, to flee, and typical speed); the result is the throw (on two dice) that that specific animal type must make to attack or flee (otherwise the animal does nothing). The number for speed is the multiplier times ordinary speed.

For example, for a grazer, roll to determine attack; one die is rolled, with a result of 6 (+2=8), so the animal will attack on a roll of 8+ when encountered. To determine the throw to flee, one die is rolled, for a 3 (-1=2), so the animal will flee on a roll of 2+. The speed die roll is a 4 (-2=2), so the animal has double ordinary speed.

Note that the rolls to determine these numbers use one die, but in all cases, they then represent two-dice rolls when used on the animal encounter tables.

Formatting: Each roll is generally a single digit, and should be followed by the letter A (for attack), F (for flee), or S (for speed). For example, A6 F7 S2 indicates an animal that will attack on 6+, flee on 7+ if it has not already attacked, and will have a speed of double ordinary.

In some cases (where phrases are given above) animals will behave according to the situation. The number used should be 0 to indicate a special case.

If possible indicates that a filter will attack if it possibly can.

If surprise indicates that the animal will attack if it has surprise.

If surprised indicates that the animal will flee if surprised.

If more indicates that the animal will attack if there are more of it than there are potential prey.

Herbivores: Most animals will attack before they flee, so the order of codes should be A F S; herbivores will probably flee first, so they should be coded F A S.

TYPICAL ANIMAL ENCOUNTER TABLE

The table below is a typical table, showing the format for presentation of the information and for easy use of the encounters. The table is clearly headed with the type of terrain, and with the world on which the terrain occurs. Headings for the individual columns make use of the material easier.

Note that each line is a single encounter. For example, die roll 6 indicates that the party has encountered 8 grazers of 400kg each, probably feeding in the clear terrain. They can take 25 hits before unconsciousness, and another 15 hits before dying. They are unarmored, and use hooves for weapons (inflicting 14 hit points each time they hit). They will flee on 1+, attack on 7+ if they have not already fled, and have a speed of 4 times ordinary.

CLEAR Terrain

Regina (A788899-A)

Die	Animal	Weight	Hits	Armor	Wounds & Weapons
2	1 Hijacker	200kg	18/11	jack	11 teeth A5 F7 S2
3	2 Hunters	12kg	3/ 7	none	4 claws A5 F4 S1
4	1 Reducer	12kg	7/ 8	none	6 horns A8 F4 S2
5	1 Flying Gatherer	3kg	1/ 3	none	1 claws A4 F4 S1
6	8 Grazers	400kg	25/15	none	14 hooves F1 A7 S4
7	7 Flying Grazers	6kg	5/ 7	none	1 teeth F4 A8 S2
8	1 Grazer	1600kg	33/11	battle+421	thrasher F5 A5 S2
9	1 Chaser	50kg	11/ 9	none	6 claws+1 A0 F7 S2
10	Event- Howling Carnivores. Out of sight, animals (die roll 11 below) are heard howling continuously. If the party spends the night nearby, they may attack (roll 7+).				
11	6 Chasers	25kg	6/11	jack	9 teeth+1 A0 F5 S2
12	1 Killer	200kg	21/12	none	17 as pike A1 F9 S1

ENCOUNTER TABLE GENERATION CHECKLIST

Use this checklist to create unique encounter tables for individual terrain situations on different worlds.

- Determine UPP and terrain types appearing on world in question.
- For each terrain type, generate an encounter table.
 - Determine type DM and size DM for terrain from terrain type table.
 - Select encounter column format or generate a different one.
 - Determine animal type and quantity using animal type table.
 - Determine special attributes (if any) for each animal type.
 - Determine specific details of animal.
 - Note weight and hits.
 - Note weapon used and wounding as altered by wound alteration.
 - Note animal armor.
 - Determine specific animal characteristics for this entry.
- Apply common sense as required.

ANIMAL DEFINITIONS

The following definitions more fully detail the meanings of the descriptive terms used for animal categories, types, and events.

Herbivores: Animals which eat unresisting food are generally classed as herbivores. While this is usually construed as covering plant eaters, the definition is extended here to cover the eating of unresisting animals as well. For example, the anteater and the whale eat effectively unresisting animals (ants and krill) and should be classified as herbivores. Herbivores are of three types:

Grazers: Animals which devote most of their time to eating are termed grazers. They may be solitary or grouped in herds. Their primary defense is flight, although such action may result in stampedes which could endanger adventurers in their path. When forced to fight, they will fight fiercely until killed or routed. Typical Terran grazers are the antelope and the moose. The whale (which scoops krill from the sea as it swims through it) is also a grazer.

Intermittent: Herbivores which do not devote full time to eating are termed intermittents. They tend to be solitary. Intermittents usually freeze when an encounter occurs, fleeing if attacked by a larger animal. There is some potential that an intermittent will attack to protect territory or young. Typical Terran intermittents are the chipmunk and the elephant.

Filters: Herbivores which pass the environment through their bodies are termed filters. Unlike grazers, which move to food, filters move a flow of water or air through themselves in order to gain food. Generally, filters suck, trip, push, or pull anything (even animals) at close range into a digestive sac, inflicting automatic wounds of 1 D per 50 kg or less of animal mass (wound alteration should be ignored for filters). Filters are solitary and generally slow-moving. They will attack reflexively (as indicated above), succeeding against adventurers with a throw of 6+. Prompt struggle by adventurers (at a cost of one endurance point each) will secure an escape on a throw of 7+, DM of +2 for each companion at close range assisting. Throw once per combat round, beginning on the round following the attack. A filter can absorb an animal up to twice its own weight. Terran filters are generally aquatic, such as the barnacle.

Omnivores: Animals which eat food without regard to its resistance are termed omnivores. The bear, which will eat fruits and berries as readily as it will hunt for

animals, is an omnivore. Omnivores are of three types: gatherers, hunters, and eaters.

Gatherers: Animals which display a greater tendency toward herbivorous behavior are termed gatherers. In most respects, they are similar to intermittents. Typical Terran gatherers are the raccoon and the chimpanzee.

Hunters: Animals which display a greater tendency toward carnivorous behavior are termed hunters. In most respects, they are similar to small or inefficient chasers. Typical Terran hunters are bears or humans.

Eaters: The true omnivore (in the sense that it will eat anything and everything) does not distinguish its food, consuming all that it confronts. Eaters present considerable danger in that they will not avoid adventurers when encountered. A typical Terran eater is the army ant (when an entire swarm is considered to be one organism).

Carnivores: Animals which prey on other animals by attacking and killing them in the face of resistance are classed as carnivores. Carnivores are of five basic types: pouncers, chasers, trappers, sirens, and killers.

Pouncers: Animals which kill their prey by attacking from hiding or by stalking and springing are termed pouncers. Because of the difficulty of coordinating such attacks, pouncers are usually solitary animals. In an encounter, pouncers which have achieved surprise have succeeded in their basic aim and will attack regardless of range. If they do not have surprise, they will sometimes still attack. They will flee if they themselves are surprised. Typical Terran pouncers are cats.

Chasers: Animals which kill their prey by attacking after a chase are termed chasers. They tend to be pack animals. Typical chasers are wolves.

Trappers: Animals which passively allow their prey to enter a created trap wherein they are killed and then eaten are termed trappers. Trappers tend to be solitary and slow, but will attack any animal which enters their trap. Generally, any character who is surprised by a trapper at close or short range is then trapped on a throw of 5+. Struggling to escape (in lieu of making any swings or blows, but costing one endurance point) succeeds on a throw of 9+, DM of +1 for

each assisting companion. Companions are subject to capture by the trap while providing assistance. Usually, a trap will not wound or damage a character, but will tend to hold the adventurer to allow the trapper to attempt to kill him. A typical Terran trapper is the spider; less typical is the ant lion.

Siren: Distinct from the trapper, which creates a trap for its prey, a siren also creates a lure to draw prey to the trap. The trap is treated in much the same manner as that of the trapper, but the lure entails additional consideration. In most cases, the lure will be specific to some animal, but will be unnoticed by humans. In rare cases (throw 11+), the lure will be universal, perhaps a smell or scent, or a mirage or beautiful configuration, which will attract characters into a vulnerable position. Very rarely, the lure will be psionic in nature. Typical terran sirens are the angler fish (its mouth is the trap) and the venus fly trap.

Killers: Certain carnivores devote much attention to killing, apparently for the act itself, in a kind of blood lust. Killer's reason (such as territorial defense) is replaced by a raw killing instinct. Attacks by killers are fierce and violent. Killers will generally disregard the defender's size as a factor. The typical Terran killer is the shark.

Scavengers: Animals which share or steal the prey of others, or that take the remains of kills, are classed as scavengers. Scavengers are of four types: intimidators, hijackers, carrion-eaters, and reducers.

Intimidators: Scavengers which establish their claim to food by frightening or threatening other animals are termed intimidators. Their standard procedure is to approach a kill and force other animals away by appearing to be a threat. A typical Terran intimidator is the coyote.

Hijackers: Scavengers which establish their claim to food by simply taking it are termed hijackers. They rely on their superior strength or size to allow them to hijack food because the other animals present cannot effectively object. A typical Terran hijacker is the lion or the *Tyrannosaurus rex*.

Carrion-Eaters: Scavengers which take dead meat when it becomes available (often waiting patiently for all other threats to disperse before beginning) are termed carrion-eaters. Most typical of Terran carrion-eaters is the buzzard.

Reducers: Scavengers which act constantly on all available food are termed reducers. They eat the remains of food after all other scavengers are finished with it, consuming

bone and other leavings. Terran reducers are all microscopic, such as bacteria.

Events: Events are not necessarily animals, comprising instead both geographic and geologic dangers, and special types of animals not ordinarily encountered. The following examples are provided, but more should be generated by the referee to cover the wide range of possibilities in the universe.

Ravines and Precipices: The party has encountered unexpected geographic features which will retard progress by one day if travel is overland. If the encounter occurs at close range (to a party on foot), the lead member of the party will probably fall (throw dexterity or greater to fall; DMs allowed based on appropriate skills), receiving 1D to 6D in wounds. If this event occurs at close or short range to a party in a land vehicle, it will topple (throw 8+ to fall; DMs allowed for ATV or vehicle skill, and DM -1 per 10 kph of speed), inflicting 0D to 5D wounds to each person in the vehicle.

Seismic Quake: A seismic disturbance occurs. Each adventurer must throw strength or less to avoid being thrown to the ground and taking 2D hits (saving throw: dexterity or less).

Meteor Shower: Possible only on airless worlds or in asteroid belts, the meteor shower can puncture vacc suits or vehicles. Throw 2D to determine the size and strength of the shower. The result indicates the number of adventurers hit; each one hit must throw the number or less to avoid a vacc suit puncture. If the number is 7+, the shower will puncture a vehicle on a roll of the number or greater. If it does, those inside must roll for injuries.

Chameleon: These animals make use of camouflage very effectively. Throw to determine the animal's category and type, as well as other data, but the encounter will be at close range. Once the encounter occurs, throw to determine the animal's reaction and whether it attacks or flees.

Psionic Assaulters: Telepathic carnivores (1D in quantity) will initiate an automatic attack on the party of adventurers. All persons not psionically shielded are immediately rendered unconscious and will receive 2D+6 hits. Psionically shielded individuals undergo combat as indicated in the psionics rules. Psionic assaulters always achieve surprise.

Storm: A violent rainstorm occurs abruptly, forcing the band to stop and seek shelter, or to continue the journey with increased danger.

Psionics

The powers of the mind are incredible; and some day the study of these powers will enable every individual to use them as an active part of his life. At the time in which Traveller occurs, however, universal psionic training does not exist; accurate information and quality training are available only through branches of the Psionics Institute, which is wholly devoted to the study of mental powers. Unfortunately, some prejudice exists, and the Institute maintains an extremely low profile.

THE PSIONICS INSTITUTE

Because the Institute does not advertise its existence, it is quite difficult to locate its facilities. Any world with a population of 9 or greater may have a branch established on it (throw 11+ for a branch to exist; DM +1 per level of population above 9).

Although a branch may exist, it still must be located. Any character may indicate that he is searching for the local branch of the Institute (throw 9+ to find it or information as to its location; DM +1 per level of streetwise expertise and +1 per level of admin expertise). Such search takes one week. If the search is unsuccessful, the character becomes convinced that no branch exists on this world, and gives up the search there.

If the local branch is located, a character may inform his comrades of his success. There is some chance (throw 7+ to avoid) that the branch is some distance away and will require a long trip to reach it.

Branches of the Institute perform two functions: they administer the examination for psionic potential, and they provide training in the use of psionic talents. Both services entail a fee.

PSIONIC STRENGTH

The Institute's comprehensive examination provides a measure of personal psionic strength. The process takes two weeks time, and costs CR 5000. Some charity is available for truly indigent applicants (referee's discretion as to suitability, then throw 10+ to be given a free examination).

The Examination: Each character has a basic potential defined by a two-dice throw. Age constantly lessens this potential, however, unless training is undertaken to use it. A DM of -1 is applied for each block of 4 years age above 18. These blocks correspond to the aging cycles. For example, a character who takes the examination at age 23 is in his second 4-year block, and has a DM of -2. Throw 2 dice and apply the DM. The result is the character's psionic strength rating. The examination may only be taken once per character.

Psionic Strength Ratings: The personal psionic strength rating may range from zero to 11. Ratings of 12 or more cannot be attained naturally once a character has passed beyond age 18; they may be achieved temporarily through the use of psi-drugs. The maximum possible rating is 15.

Psionic strength ratings indicate two things: the maximum level of activity which may be performed, and the number of strength points at the character's

command for the performance of specific tasks.

Maximum Activity Level: Each type of activity within a psionic field is assigned a level. A character may not perform that activity unless his or her personal psionic strength (unenhanced by psionic drugs) is equal to, or greater than, the level of the activity.

Available Strength Points: Each type of activity requires the expenditure of psionic strength points for the activity and for the range at which the activity is performed. A character's psionic strength rating is an index of the points which he or she may expend. Expended points are regenerated, over time, by rest and recuperation. Psi-drugs may increase the points which are available to the character.

Aging and Deterioration: An untrained character is subject to a gradual, relentless deterioration of his psionic strength rating. When the aging point occurs (every 4 years), his or her rating is reduced by 1. A trained individual is not subject to reductions in power through normal aging.

If, through aging, permanent injury, or any other cause, a character (trained or untrained) has the sum of his first four characteristics (strength, dexterity, constitution, and intelligence) reduced to less than his psionic strength rating, his psionic strength is reduced to that sum. Psi-drug abuse can also reduce psionic strength.

TRAINING

The Institute will train individuals in the use of their latent talents. Training requires 4 months and costs Cr100,000. Extremely talented individuals (psionic strength ratings of 9 or greater) may apply for a scholarship if they cannot otherwise afford training. In such cases, the Institute will take 95% of the character's assets, and waive the remainder of the cost. (Referee: the Institute can, of course, read minds, and will not favorably regard fraudulent or devious applications.)

The Six Possible Talents: Although there are a total of six possible areas of psionic activity, no one person will usually be capable of activity in all areas. In training, a character will learn those areas in which he has ability or potential, and those areas in which he has no talent at all.

Roll two dice successively for each of the six talents listed in the talent table. A throw is indicated which must be achieved in order to have ability in that area. A DM must be applied to each throw: the throws may be made in any order, but there is a DM of -1 on the first throw, -2 on the second throw, -3 on the third throw, and so on. Thus, a character extremely anxious to acquire teleportation would throw for that talent first.

Effects of Training: The training sessions merely acquaint the character with the possibilities of psionic talents, and impart a rudimentary control over them. As a result, the character can perform any task of level 1. Experience and hard work will allow the character to learn how to use greater levels of power. The effects of time and experience are given in the descriptions of the specific talents.

Training also instructs the characters in the methods of concealing their powers, and in the dangers of allowing common citizens to know of their power. When training is completed, the Institute is incapable of further assisting characters in their psionic development. From that point, all depends on experience and fortune.

It is possible for a character to have a very high psionic strength rating and nonetheless turn out very badly in training, discovering that he has few or no specific abilities. It is also possible to discover that a character has a rudimentary talent in a

field, but insufficient level to enable him to perform any activity. For example, teleportation requires a psionic strength rating of 7. A character with a psionic strength of 5 who achieves teleportation as a talent is still unable to teleport because he has an insufficient rating. Psi-drugs will increase his strength, but not his rating.

Psionic training is not available in the services, nor is it available from any source except the Institute.

RANGE

Psionic activity is restricted by the range or distance at which it is performed. A greater number of psionic strength points are required to do psionic tasks at greater ranges.

The range definitions given here apply to psionic activity. It is important to note that the ranges close to very long are identical to the tactical ranges used in personal combat. Psionics have so far proven incapable of interplanetary ranges.

Range refers to simple straight line distance. Psionic activity, at the ranges given, is effectively instantaneous, and is not affected by intervening matter in most cases (for example, electromechanical psionic shields do interfere with psionics, but planetary masses or walls do not).

TELEPATHY

Telepathy is the ability to contact other minds directly. In rudimentary forms, it allows the communication of feelings and emotions; in advanced forms it allows the transfer of information. There are several levels of telepathy, which depend on the psionic strength and experience of the user.

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

Life detection is a level 1 ability, and requires 1 psionic strength point to perform (plus any additional cost due to range, if applicable). Activity may last up to 60 seconds. Life detection is reasonably sophisticated, and can "ignore" bacteria or unimportant animals in the area. It functions best in detecting intelligent minds. Shielded minds are undetectable (see Shields). If an individual whom the telepath knows is "life detected", he or she will be recognized.

Telempathy: The communication of emotions and basic feelings is accomplished by telempathy. This ability serves well in the handling of animals and beasts of burden, but may also be applied as a psychological weapon against humans. Sending of emotions such as love, hate, fear, and others may influence other beings (although not necessarily in the manner desired). Telempathy also allows the emotions and feelings of others to be read by a character.

Telempathy is a level 2 ability, and requires 1 psionic strength point to perform (plus range costs as applicable). Activity may last up to 60 seconds.

Read Surface Thoughts: The most commonly known feature of telepathy is the ability to read the thoughts of other individuals. Only active, current thoughts are read by this ability, with the subject (if himself not a telepath) unaware of the activity. Individuals with telepathic ability cannot be read due to the presence of

their natural shields.

This ability is of level 4 and requires 2 psionic strength points to perform. Activity may take up to 60 seconds. Range costs must be added if applicable.

Send Thoughts: Complementary to the ability to read surface thoughts is the ability to send thoughts to others. Such individuals need not themselves be telepathic to receive such thoughts. Telepathic individuals are normally open to such transmissions, but may close their shields against them if they become bothersome or threatening. A thought transmission may last up to 120 seconds. Sending thoughts is a level 5 ability, and requires 2 psionic strength points to perform, plus normal costs due to range.

Probe: The application of great psionic strength will enable a telepath to delve deep into the mind of a subject and to then read his innermost thoughts. Questioning can be used in the procedure to force the subject to divulge specific information. The prober can easily determine deliberate untruths told (thought) by the subject. Probe cannot be used against a shielded mind. Probe is a level 9 ability, and requires 8 strength points to perform. Probing may last up to 10 minutes, which time is usually sufficient to determine the information sought.

Assault: Violence may be dealt by a telepath. Against an unshielded mind, the result is automatic unconsciousness, and possible death. Against a shielded mind, an instant duel ensues. An unshielded mind, when assaulted telepathically, is rendered unconscious immediately, and the character receives wounds equal to 2D+6. When a shielded mind is assaulted, the attacking telepath compares his psionic strength rating to the psionic strength rating of the defender: the difference (attacker minus defender) is the required DM. For the assault to succeed, the attacker must throw 7+. For example, an attacker with a psionic strength rating of 13 assaults a character with a psionic strength rating of 5 ($13-5=8$); a DM of +8 is allowed in the assault.

Assault is a level 10 ability, and requires 10 strength points to perform. The assault takes less than 2 seconds to occur.

Shield: All telepathically able characters learn how to create a mental shield which protects the mind against unwanted telepathic interference. Such a shield is automatically in force at all times and requires no strength point expenditure to maintain. Artificial psionic shields are clumsy helmet-like devices which function in much the same manner while worn. They weigh 1000 grams, offer little physical protection, and have a base price of CR 4000.

Experience: When the talent of telepathy is initially learned, a telepath is capable only of life detection and shield. As time passes, and the character works at improving his ability (time passing is sufficient for this), he will gradually improve to the full range of his potential. Each month, the character may roll two dice to determine his progress in his telepathic talent. For a throw of 8+, he has increased his capability one level. Such increase may never result in an ability higher than his psionic strength rating. For example, a character with a psionic strength rating of 11 is potentially capable of all abilities, including assault, but upon completion of training, he is actually capable only of level 1 activity (life detection and shield). After successfully rolling 8+ 10 times (in 10 or more months, at one roll per month), he will have realized his full potential. A character of psionic strength rating 4 could never exceed level 4 (after 4 or more months, at one roll per month).

In situations where a non-player character is read or influenced by telepathy, it

is the responsibility of the referee to determine the person's reactions and thoughts.

CLAIRVOYANCE

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

Sense: The basic ability to sense things at some point in the distance. A character will become aware of the most rudimentary characteristics of a location when applying this ability. For example, the referee will give a basic description, without detail: a room, containing 4 dogs" or "an open plain with a tree, and no animals or men present". The clairvoyant character must state the range at which he is applying his talent, and will generally sense the most interesting or important feature at that range. Sense is a level 2 ability, and requires 1 psionic strength point to perform (plus any range cost).

Clairvoyance: This specific ability allows actual viewing of a situation at some displaced point. It may be performed outright, or to allow elaboration of some situation sensed. The clairvoyant character must state the range at which he is applying his talent. Clairvoyance is a level 5 ability, and requires 2 psionic strength points to perform, in addition to any range costs.

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

Combined Clairvoyance and Clairaudience: A character is capable of both seeing and hearing a specific situation by using this ability. It is of level 9, and requires 2 psionic strength points to perform, in addition to any range costs.

Direction: A character may specify the exact location at which he is applying his ability, if it is out of physical sight, by direction, provided he has some knowledge of the location by experience or description. This guidance assists him in performing his activity in the most efficient manner. Direction is a level 3 ability, and requires no basic points to perform (although range costs must be paid).

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

Experience: A beginning (newly trained) clairvoyant is considered to be of level 1 regardless of his actual psionic strength rating. Each month, he must throw two dice, and if he achieves 8+, he increases his actual ability one level, until he has reached his actual psionic strength level.

TELEKINESIS

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

The telekinetic levels table indicates the weight manipulation allowed by level of ability. In addition, the level of ability indicates the cost in psionic strength points to perform such manipulation. Costs due to range must also be paid. The costs

envision normal lifting or manipulating; throwing with a strength generally equivalent to physical throwing may be performed at a double psionic strength point cost. Any one telekinetic feat may last for up to 60 seconds. Note that personal mass in most cases will not exceed 100 kilograms; a character of level 10 telekinetic ability can levitate. Gravity differences will not alter the mass which can be manipulated.

Telekinetic power may not be applied at greater than very long range, and then only (as may be seen from the range table), at relatively great cost in psionic strength points.

Experience: Regardless of ultimate potential ability, a character leaves training capable only of level 1 activity. Each month, upon successful achievement of a roll of 8+, ability level increases one level. A character's level of ability may never exceed his psionic strength rating.

AWARENESS

Awareness is the psionic talent which allows control of one's own body. Awareness covers a range of four possible abilities, described below.

Suspended Animation: Personal body activity may be suspended for varying periods of time. A character with awareness may enter a suspended animation state (similar to cold sleep, but without the intrinsic danger of death) by willing himself into it. Such a state continues for 7 days, without need for food or water, and with minimal air needs. Such a person could effectively travel in a cold sleep berth, without actually undergoing cold sleep and its dangers. Suspended animation may be stopped at any time, provided external stimulus is given to awaken the sleeper (such as a friend or a mechanical alarm). This is a level 2 ability, and costs 3 points to perform.

Psionically Enhanced Strength: Psionic strength points may be converted to physical strength points on a temporary basis. The character makes the commitment, reduces his available psionic strength by a specific number of points, and increases his physical strength characteristic by that number. In no case may the number of strength points gained exceed the character's current level of awareness, and physical strength may not be increased beyond 15. Psionically enhanced strength reaches its new level immediately, remains at that peak for 60 minutes, and then declines at the rate of 1 strength point per minute until normal strength level is reached. Psionically enhanced strength is a level 4 ability.

Psionically Enhanced Endurance: Psionic strength points may be converted to physical endurance points on a temporary basis. The character makes the commitment, reduces his available psionic strength points, and increases his endurance characteristic by the same number. In no case may the number of endurance points gained exceed the character's current level of ability, nor may endurance ever be increased to beyond 15. Psionically enhanced endurance reaches its new level immediately, remains at that level for 60 minutes, and then declines at a rate of one point per minute until normal endurance level is reached. Psionically enhanced endurance is a level 5 ability.

Regeneration: Wounds and injuries may be healed rapidly. Wound points may be healed by the application of this ability, exchanging one psionic strength point to regenerate one wound point. Healing occurs immediately (less than one minute). Should one session of healing be insufficient, further healing and regeneration may

be applied after expended psionic strength is recovered. Regeneration may also be applied to the growing of new limbs or organs to replace lost ones, or to heal unrecovered old wounds suffered prior to psionic training. Regeneration may not be used to counteract aging. Regeneration is a level 9 ability.

Awareness is not capable of affecting others and may not be used for healing or enhancing other characters.

Experience: A character with awareness leaves training with level 1 ability, and may increase the ability as time passes. Each month throw 2D for 10+; if successful, increase the level of awareness by 1.

TELEPORTATION

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

Teleportation calls for the range cost as indicated on the table to be paid in order to perform the activity, regardless of the level of the skill or its apparent difficulty.

Personal teleportation without external materials such as clothing or weapons is a level 5 skill.

Personal teleportation, clothed but without any personal load or weapons, is a level 7 skill. A weapon of up to 1000 grams, if worn so as to be part of an individual's clothing (holstered or sheathed), may be carried.

Personal teleportation, clothed and carrying a physical load of weapons and other items, not to exceed the character's strength in kilograms, is a level 9 ability.

Teleportation always involves the movement of one's body to another location. Independent items or other individuals may not be moved. A small animal could conceivably be carried as part of a personal load under the terms of level 9 ability.

Teleportation involves certain requirements in order to be accurate, and to insure obedience of the laws of physics.

Preknowledge of Destination: A character must always have a mental image of his or her destination before teleporting. This mental image is acquired by personally visiting the location first (including just viewing it from a distance), having the mental image implanted in one's mind (by telepathy) by another person who has visited the destination, or by viewing the location through clairvoyance (level 5 clairvoyance, not simply the lesser sense).

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

On planetary surfaces, teleportation is restricted to jumps of less than regional distance. Jumps at very distant range involve disorientation for a period of 20 to 120 seconds. Jumps at distant range involve a chance (throw 8+) that the character will stumble or fall upon arrival. The character should demonstrate to the referee the specific effects to be expected, and then how they will be avoided, before attempting jumps at ranges greater than distant.

This restriction results from the law of conservation of momentum: on a rotating planet, two locations will have different rotational speeds and directions. A jump from a point on the earth's equator to its antipode would result in a total velocity difference between the character and his surroundings of over 3300 kph.

Changes in altitude (actually all movement to locations of differing gravitational potential) will result in potential energy changes, manifesting themselves as changes in body temperature. A jump of 1km straight down will result in a temperature increase of 2.5 degrees Celsius; this is sufficient to cause extreme fever, brain damage, and even death. A jump up will cool the body by the same amount, with equally serious results. To be safe, a jump may not involve an elevation change of more than 400 meters, and multiple jumps should not involve a cumulative elevation change of more than 600 meters in one hour. These problems may be gotten around through the use of technological devices: energy compensators, heat suits, and other means. Characters may feel driven to invent such materials, commission their invention, or seek them out from those who already have them.

Experience: Teleports leave training with level 5 ability; those with a psionic strength rating less than 5 may not increase their ability, and cannot teleport. Each month, throw 12+ to increase by one level. Teleport level may not exceed psionic strength rating.

SPECIAL

Although psionic activity generally lends itself to classification, some individuals defy this very classification. Individuals with special talent are capable of some activity which is not described here; this talent is dispensed by the referee after deliberation. The special talent may include abilities not covered by this section, or may be a random assignment of otherwise unreceived abilities. Special talents should be made psychologically dependent on a focus, in the form of some artifact or charm, which must remain in the possession of the character.

RECOVERY

When psionic strength points are expended, the available points for a character are reduced. Such points are naturally recovered by a process of rest and recuperation. Beginning three hours after the last psionic activity, a character regains one psionic strength point per hour until the total equals the normal psionic strength rating. Such recovery is independent of physical activity. Psionic activity is defined as any psionic-related acts, including the taking of psi-drugs for any purpose.

PSI-DRUGS

Chemical means are available to enhance psionic strength points on a temporary basis. These drugs are:

Booster: The basic psi-drug, available in small one-dose pills. Booster increases an individual's available psionic strength points by +3 if taken when psionic strength is at full power, or by +2 if psionic strength is at a reduced level. Additional doses of booster have no effect if taken within an hour, and the drug will never boost psionic strength points to a level greater than normal +3. The drug-induced additional psionic strength will wane and disappear at the end of one hour.

Double: A more potent form of the drug, also available in small, one-dose pills. Otherwise identical to booster, double increases psionic power by +6 if taken when psionic strength is at full power, or by +4 if taken when psionic strength is at a reduced level.

Special: The rarest of psi-drugs, special is available only in liquid form and must be taken by injection. Special gradually increases psionic strength points to 15 at

the rate of one point per hour. Psionic strength remains at this level (if unused) for four hours and then wanes at the rate of one point per hour until psionic strength reaches zero. Normal recovery then occurs. Special has some dangers, and there is a chance (throw 11+ each time used) that it will permanently reduce psionic strength rating by -1.

Availability: Because the general public attitude towards psionics is negative, psi-drugs are expensive and difficult to obtain. Psi-drugs must nearly always be located and bargained for; they will not be found in normal commercial channels.

Dealers may exist on any world (throw 8+ to locate a dealer after two days' search; DM of +1 per level of streetwise expertise). Most dealers will have only booster; throw 1D for the number of doses available with a base price of Cr1,000. Double will be available on a throw of 10+; 1D-2 should indicate the number of doses available with a base price of Cr4,000. Special will be available on a throw of 12+; 1D-4 should indicate the number of doses available with a base price of Cr10,000. Prices may be higher but will generally not be lower.

Pitfalls: The abuse of psi-drugs can lead to the loss of psionic powers and to physical debilitation. If a character takes three doses in three days, there is a chance (throw 9+) that drug overdose will take place within six hours of the last dose.

If overdose occurs, the character becomes seriously ill, lapsing into unconsciousness and taking hits equal to 3D. Upon recovery from the illness, psionic strength rating is reduced (saving throw 10+) permanently by -1.

PUBLIC PREJUDICE

The climate of public opinion about psionics is extremely negative. Individuals will find it unhealthy to admit possession of, or sympathy for, psionic powers. Persons with psionic ability will not admit their powers unless reassured that they are in no danger; this will usually involve self-revelation by a psionic talent.

Some hirelings or citizens may have psionic training or ability (throw 12 to have any ability; then determine the actual ability). There is an equal chance that the non-character will be an informant or potential informant.

Psionic individuals detected by the public or the authorities are subject to a variety of responses, based on a two-dice throw: 12+ for lobotomy, 10+ for lynching, 8+ for tarring and feathering, 6+ for imprisonment, and 4+ for deportation.

PSIONIC TALENTS

Telepathy5+
Clairvoyance.6+
Telekinesis.6+
Awareness7+
Teleportation9+
Special9+

Roll two dice for each successive talent; they may be rolled in any order. Apply a DM of -1 on the first throw, -2 on the second throw, through -6 on the sixth throw.

See also page 39.

PSIONIC RANGES

	<i>Talent</i>			
	<i>Tele- pathy</i>	<i>Clair- voyance</i>	<i>Tele- kinesis</i>	<i>Tele- port</i>
<i>Range</i>				
Close	0	0	0	1
Short	1	1	1	2
Medium	2	1	2	3
Long	3	2	4	3
V Long	3	2	9	3
Distant	4	3	—	4
V Distant	4	3	—	4
Regional	5	4	—	5
Continent	5	4	—	5
Planetary	6	4	—	5

RANGE DESCRIPTIONS

Close: in physical contact; touching.

Short: at sword or polearm point; approximately 1 to 5 meters.

Medium: at pistol range; from 6 to 50 meters.

Long: at rifle range; from 51 to 250 meters.

Very Long: at extreme range; from 251 to 500 meters.

Distant: beyond normal contact; from 500 to 5000 meters.

Very Distant: out of sight; from 5 to 50 kilometers.

Regional: from 50 to 500 kilometers.

Continental: from 500 to 5000 kilometers.

Planetary: from 5000 to 50,000 kilometers.

PSIONIC SKILL SUMMARIES

<i>Level</i>	<i>Name/Description</i>	<i>Time Required</i>	<i>Cost</i>
Telepathy (Experience: 8+ per month to increase one level)			
1	Shield	constant	0
1	Life detection	60 seconds	1+Range
2	Telepathy	60 seconds	1+Range
4	Read surface thoughts	60 seconds	2+Range
5	Send thoughts	120 seconds	2+Range
9	Probe	600 seconds	8+Range
10	Assault	2 seconds	10+Range
Clairvoyance (Experience: 8+ per month to increase one level)			
2	Sense	15 seconds	1+Range
3	Direction	constant	0+Range
5	Clairvoyance	15 seconds	2+Range
5	Clairaudience	15 seconds	2+Range
9	Combined	15 seconds	2+Range
Telekinesis (Experience: 8+ per month to increase one level)			
1	Move 1 gram	60 seconds	1+Range
2	Move 10 grams	60 seconds	2+Range
3	Move 100 grams	60 seconds	3+Range
5	Move 1 kilogram	60 seconds	5+Range
8	Move 10 kilograms	60 seconds	8+Range
10	Move 100 kilograms	60 seconds	10+Range
Awareness (Experience: 10+ per month to increase one level)			
2	Suspended animation	7 days	3
4	Psionically enhanced strength	60 minutes	1/point
5	Psionically enhanced endurance	60 minutes	1/point
9	Regeneration	60 seconds	1/point
Teleportation (Experience: 12+ per month to increase one level)			
5	Personal, unclothed	—	0+Range
7	Personal, clothed	—	0+Range
9	Personal, with equipment	—	0+Range

A Final Word

Traveller is necessarily a framework describing the barest of essentials for an infinite universe; obviously rules which could cover every aspect of every possible action would be far larger than these three booklets. A group involved in playing a scenario or campaign can make their adventures more elaborate, more detailed, more interesting, with the input of a great deal of imagination.

The greatest burden, of course, falls on the referee, who must create entire worlds and societies through which the players will roam. One very interesting source of assistance for this task is the existing science-fiction literature. Virtually anything mentioned in a story or article can be transferred to the **Traveller** environment. Orbital cities, nuclear war, alien societies, puzzles, enigmas, absolutely anything can occur, with imagination being the only limit.

The players themselves have a burden almost equal to that of the referee: they must move, act, travel in search of their own goals. The typical methods used in life by 20th century Terrans (thrift, dedication, and hard work) do not work in **Traveller**; instead, travellers must boldly plan and execute daring schemes for the acquisition of wealth and power. As for the referee, modern science-fiction tradition provides many ideas and concepts to be imitated.

Above all, the players and the referees must work together. Care must be taken that the referee does not simply lay fortunes in the path of the players, but the situation is not primarily an adversary relationship. The referee simply administers the rules in situations where the players themselves have an incomplete understanding of the universe. The results should reflect a consistent reality.

Welcome to the universe of **Traveller**!

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