

OTHERTM SUNS

Book 1

Characters
and Skills

DESIGN:

Niall Shapero



Book 1

**OTHERTM
SUNS**

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This book is dedicated to Kathryn Shapero, my loving wife, who put up with me while it was being tested and written, and rewritten, and rewritten.

With thanks to the following playtesters and critics:

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Note that a complete index to both volumes of these rules appears at the end of Book 2. For this reason the Table of Contents presented here is in abbreviated form.



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1. Introduction

1.1 INTRODUCTION

1.1.1 What Is Role Playing

A role playing game is a game of character development, a game approach that has been likened to improvisational theatre. The player acts out a role in the world designed by the Referee just as he might act a role as a character in a play.

1.1.2 The Purpose Of This Game

'Earth is the cradle of Mankind, but one cannot remain in the cradle forever' — Tsiolkovskii

OTHER SUNS is a game of exploration and discovery set in the future, when mankind has found new homes on worlds orbiting other suns far from mother Earth. The player creates one or more characters, known as Adventurers, and plays them in various scenarios designed by the Referee. The Adventurer has the use of scientific and other skills, equipment, and, as a last resort (hopefully) combat. The Referee has the use of assorted traps, strange and eldritch creatures, and his own wicked imagination to keep the Adventurer from his goal within the rules of the game. A surviving Adventurer gains experience in scientific and other skills, psionics, and fighting, as well as gaining money with which to purchase further training.

The Adventurer progresses in this way (either in military service or in merchant service) until he is so proficient, or has such an incredible reputation for success, that he comes to the attention of the High Lords of the Hegemony (either the flag rank officers of the Admiralty if the character is in the military, or one of the merchant princes if he is an interstellar trader). At this point, he will either be promoted to the command of a starship, or he will receive additional financial backing, or some other form of reward will be offered (depending upon whether he is in the military, or is in some civilian occupation).

The ultimate goal for the Adventurer is success — measured in terms of knowledge, prestige, power, position, and money. In order to reach that goal, the Adventurer's primary desire is to stay alive. As a result, combat is to be avoided if at all possible. For combat is more realistic in this game than in some other science-fiction role playing games, and so is extremely dangerous. Glory in battle in **OTHER SUNS** has been made an exceedingly dangerous path to recognition, though a path still open to those wishing to risk its dangers. A far safer, though still perilous, path to glory for the Adventurer is that of the interstellar explorer. And it is this path to glory which is the primary goal of the Adventurer in this game.

1.1.3 How To Use These Rules

First, read through the rules once in their entirety. Roll up a human character. Next, together with a few friends, begin play with a few simple scenarios, adding the more exotic non-human species and the more exotic capabilities (psionics, other senses) as the group's experience with the mechanics of play improves. Once all features of the game have become reasonably well understood by all players, add features of your own (added technology, equipment, alien races, etc.).

1.1.4 Equipment Needed To Play

Besides this set of rules, **OTHER SUNS** players will need dice of many shapes for the game. The mix of dice suggested for play is as follows:

Type	Abbreviation
two pair of 20-sided percentile dice	1D100
one 20-sided die marked from 1 to 20	1D20
four 12-sided dice	1D12
four 8-sided dice	1D8
four 6-sided dice	1D6
two 4-sided dice	1D4

Within these rules, dice will be referred to using the above abbreviations. Thus, if it is necessary to roll the sum of two 12-sided dice, it will be written as 2D12. Other die sizes will occasionally be required for which there are no regular dice; a 16-sided die (1D16) for example might be needed for a telekinetic attack. In this particular example, one could roll 1D8 and 1D4 and if the 1D4 equaled 1 or 2, read the 1D8 as the value rolled, and if the 1D4 roll was 3 or 4, add 8 to the 1D8 roll (in much the same way that a 1D4 and a 1D10 can be used to produce the equivalent of a 1D20). Other die rolls desired can be produced with other combinations of the above listed dice, or by rolling the above dice and either ignoring certain rolls and rerolling, or by dividing the roll by some constant and rounding fractions consistently up or down. In this way, a 1D7 roll can be produced (roll 1D8 and reroll if an 8 is rolled) or a 1D3 roll can be produced from a 1D6 (divide by 2 and round all fractions up).

Three six sided dice and two twenty sided percentile dice are provided with the game; the other polyhedral dice (1D4, 1D8, and 1D12) can be purchased from any hobby store or mail order house that sells role-playing or war games. 1D12 can be simulated by rolling 2D6: if the first D6 roll is 4-6, add 6 to the roll of the second die, otherwise add 0 to the roll of the second die. 1D8 can be simulated by rolling 1D10 and ignoring and rerolling die rolls of 9 or 10. 1D4 can be simulated by rolling 1D6 and ignoring and rerolling die rolls of 4 or 5 or alternatively by rolling 2D6 as described above to produce a 1D12 roll, dividing the result by 3, and rounding all fractions up to the next largest whole number.

OTHER SUNS does not need a playing board. The player's imagination provides the stage on which the characters act. As assistance in this drama, the player will find the following items helpful: (1) paper, (2) pencils and pens, (3) lead or plastic figures, (4) a great deal of time, and finally (5) imagination (the more, the better).

While not essential to the play of the game, a simple four function calculator with square root will greatly reduce the time and effort required for calculations.

1.2 BACKGROUND

1.2.1 History

The L'Doran Hegemony is a multi-species multi-star system government that developed while the human race was building the pyramids in Egypt. In the years mankind developed on Earth, the myriad races of the Hegemony forged a multi-species empire that covered almost a third of the galactic rim.

And when Homo Sapiens went out to the stars in the latter part of the twenty-first century, he did so armed to the teeth. The Hegemony had and has one real hard rule: 'Thou shalt not make war upon any species of the Hegemony'. And when the Terran Empire met the L'Doran Hegemony in the fourth century of the Atomic Era the contact was little short of explosive.

Humanity lost the first Hegemony-Empire War on the battlefield, then won it at the peace tables. A brief period of peace followed the first war while the human leaders rethought their position in the galaxy and prepared for the next war.

It is a tribute to the force of will, the strength, the spirit, and the sheer unmitigated chutzpah of the human race that it went about preparing, in all seriousness, to take on practically a third of the rest of the galaxy single handed. What the heck, it almost worked! But though the human race had adopted virtually all of the technological wonders of their opponents, and though the humans were by and large better at the bloody game of mass warfare and killing than the majority of the Hegemonic species, Homo Sapiens was terribly outnumbered in the second Hegemony-Empire War.

At the end of the war Earth was a radioactive cinder and the Terran Empire (though not the human race) had been utterly destroyed. But the Empire was not alone in death. The economic stresses and strains imposed by the war did what the human starships had failed to do. And the starlanes were clear of Hegemonic, as well as Imperial, starships.

In the ninth century of the Atomic Era, the Hegemony began to rebuild and reform as various former member races reacquired sufficient investment capital, sufficient risk money, to begin building and maintaining starships once again. In the eighteenth century of the Atomic Era, the L'Doran Hegemony covers virtually one quarter of the galactic rim. Human worlds, former Imperial colonies, have joined the Hege-

mony, and the combined efforts of all races are being directed towards peaceful exploration, expansion, rediscovery of old worlds, and the development of new worlds.

In this era of starfaring Drakes and Magellans, of freebooters, explorers and exploiters of all kinds, the players must make their fortunes.

1.2.2 Technological Base

The L'Doran Hegemony is an FTL-starflight capable society (FTL = faster than light). Contragravity drives for normal space and atmospheric flight are commonplace. Power for all common needs is provided by cheap and efficient total conversion devices. Privately owned FTL starships are common. Planetary weather control techniques are well known and planetary engineering to order is an expensive, though scientifically trivial, project. Time travel, and cross-time travel are possible, though extremely difficult (in much the same way that space travel is now).

1.2.3 Monetary Base

The unit of exchange in the L'Doran Hegemony is called the System Monetary Unit (or SMU) and is worth roughly 0.02 troy ounces of gold. Inflation is a factor of interest only in some primitive local economies — it is not a factor in the global Hegemonic economy.

2. How to Create a Character

2.1 CHARACTERISTICS

To create an Adventurer, the player rolls dice for each of the following characteristics. This provides the basic parameters of the Adventurer's development. The die rolls given are for humans. Other intelligent races may use different die rolls for the various characteristics. These differences are dealt with in Chapter 9, Intelligent Species.

1. Strength (STR):

Helps determine the damage a character does, how much equipment he can carry, and what weapons he may use. Strength can be increased through training up to the rating for the character's Constitution or Build, whichever is larger. Humans roll for strength on 3D6.

2. Intelligence (INT):

The character's ability to deal with abstractions and to learn from experience. Intelligence for humans in the general population is rolled on 3D6. However, adventurous characters — the spacers, the scientists, the space merchants — are all a cut above average. Thus all human adventuring characters (i.e. all player-run humans) roll for INT on 2D6+6.

3. Will (WIL):

The character's strength of will and ego — an important factor in the ability to resist and/or power certain kinds of psionic attack and possibly to affect the world through direct force of will (see Chapter 6, Psionics and the Use of Will). Will is also a measure of the character's overall self-confidence. Will can be increased through training up to the species maximum. Humans roll for Will on 3D6.

4. Constitution (CON):

The character's health. It helps determine how much punishment (in combat or otherwise) a character can take before he dies. Constitution can be increased through training up to the maximum of Strength or Build. Constitution is rolled on 3D6 for humans in the general population. However, adventurous characters — the spacers, the scientists, the space merchants, are all a cut above average. Thus all adventuring characters (i.e. all player run characters) roll for CON on 2D6+6.

5. Endurance (END):

The character's ability to withstand pain and to engage in strenuous activity for prolonged periods of time. Endurance is also a factor in determining how much physical punishment a character can take. Endurance can be increased through training up to species maximum. Humans roll for endurance on 4D10.

6. Dexterity (DEX):

The character's ability to move quickly and accurately. Dexterity

may be increased through training up to species maximum. Humans roll for dexterity on 3D6.

7. Charisma (CHA):

The character's ability to lead. It is the ability to say 'follow me' and find oneself leading a charge. Charisma is subject to change (both up and down) depending upon the success or failure of previous ventures. Humans roll for charisma on 3D6.

8. Length (LEN):

The height of the character, in centimeters (1 inch = 2.54 centimeters; 1 centimeter = 0.394 inches). This characteristic determines the reach of the character. It also helps determine the overall body mass of the character, the principal factor in the amount of total damage the character can take before dying. It is assumed that all Adventurers have reached their full growth prior to entering play, so this characteristic cannot increase during the course of the characters career. Humans roll for LEN on 110+6D20 for male characters, and on 100+6D20 for female characters.

9. Build (BLD):

The massiveness of the character's bone structure — indicating how stocky, and how bulky the Adventurer's body is — the higher the roll, the stockier the build. It is an important factor in determining the overall size of the character (and hence his ability to withstand damage). This characteristic may only change by one point from the original roll once the Adventurer has begun his career. Human males roll for BLD on 3D6, human females roll for BLD on 3D4+1.

10. Size (SIZ):

The combined indicator of the mass and height of the character. It is the greatest single factor in determining the character's ability to absorb punishment in battle and his ability to deal out damage in hand-to-hand combat. This characteristic is not rolled but is instead computed from LEN and BLD. All species compute SIZ as follows: $SIZ = (LEN/10) + (BLD/3) - 1$ (round fractions UP). The total mass of the character can be determined from his SIZ as follows: Mass (in kilograms) = $(SIZ^3)/100$ (cube the size, and divide the result by 100). One kilogram is 2.2 pounds.

11. Telepathic Strike Capability (TSC):

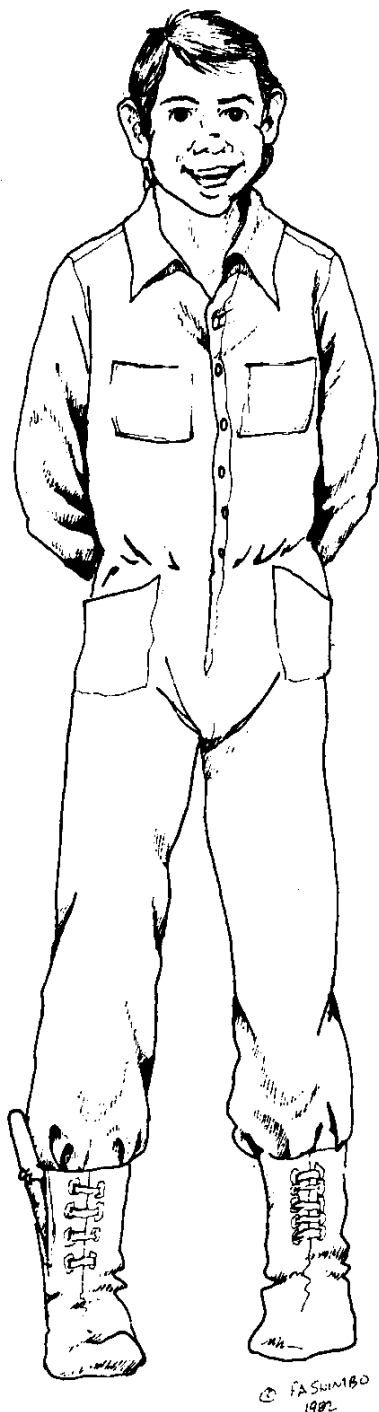
The measure of the character's ability to launch telepathic attacks and to probe minds. There is no species maximum for TSC and no limit to the amount of training that may be applied towards increasing

this characteristic (provided that the character has a TSC above zero to begin with). Humans roll for TSC on RdD6, where $RdD6 = 1D6 - 5$, with rolls below zero treated as zero (thus, to determine an RdD6 roll, roll 1D6 and on 1-5 the result is 0, on 6 the result is 1). Characters with TSC = 0 can NEVER be trained to TSC = 1.

12. Telepathic Resistance (TPR):

The measure of the character's resistance to telepathic attacks via the character's ego, by the basic integrity of the total mind of the character. It is his first line of defense against telepathic probes or attacks. There is no species maximum for telepathic resistance, and TPR may be trained without limit. Humans roll for telepathic resistance on 1D4+1.

To provide a running series of examples for the reader we will be presenting the example of Mikhail Andreivitch throughout this book. For now, let's roll up his characteristics . . .



STR=12 – This is a high average STR, allowing Mikhail to handle most weapons without penalties. See Chapter 4, Combat Skills for more details on the precise limits involved.

INT=17 – This is an excellent roll. As will be seen later, it gives him a number of advantages in gaining expertise in skills. And his starting skills will also be much improved (see Chapter 8, Previous Experience) by his high intelligence.

WIL=9 – This is a below average roll. So Mikhail's force of will and strength of ego are, perhaps, a little bit below average, but not enough to cause him any serious difficulty. However, his WIL score is sufficiently low that he might as well give up any hope of developing any of the psionic 'wild talents' until his WIL score can be improved (see Chapter 6, Psionics and the Use of Will for more details).

CON=9 – This is a below average roll. And Mikhail Andreivitch will be somewhat vulnerable to disease and poison. Obviously, the Man of Steel he is not.

END=22 – This is a strictly average roll. So Mikhail is able to take just about as much pain as the next person before passing out, and of working just about as hard (STR and CON permitting).

DEX=18 – This is a very good roll. Obviously, what Mikhail lacks in bodily strength and toughness, he more than makes up for in speed and agility. He will be able to use all equipment and weapons a bit better than average as a result of his quick reflexes and great agility.

CHA=13 – At this point, Mikhail is a bit better than the average person at persuasion. This has nothing to do with his looks – just with his persuasiveness.

LEN=180 – This means Mikhail is 180 centimeters tall, or roughly 5'11".

BLD=9 – This means that Mikhail is not particularly heavily boned, but he is no lightweight either – just on the low side of average.

SIZ=20 – This puts Mikhail at the average for human males. He will mass 80 kilograms (roughly 176 pounds).

TSC=1 – For a human, this is an unusually good roll. It means that Mikhail is a telepath (only one human in six is a telepath in OTHER SUNS). Though not particularly powerful by comparison with individuals from naturally telepathic species, this sets Mikhail a bit apart from the rest of humanity. His range is limited to a mere 10 meters at the moment. And with another equally adept human telepath, his ability to communicate is limited rather dramatically (the success chance for communication between two TSC=1 individuals being only 10%).

TPR=3 – A typical average telepathic resistance. So Mikhail, though telepathic himself, has no particularly great resistance to telepathic probes and/or attacks. Yet.

MIKHAIL'S POTENTIAL INCREASES

STR—Since both his CON and BLD are less than his STR, Mikhail may not increase his STR.

INT—Failing some incredible miracle, Mikhail will be stuck with his current INT (not that he would complain, mind you)

WIL—This characteristic may be increased up to species maximum eventually, though Mikhail has a long way to go here.

CON—Thanks to his STR of 12, Mikhail may increase his CON, as explained later, to a maximum of 12.

END—This attribute can be increased to the species maximum, as explained later, though in Mikhail's case it would take many months of training to do so.

DEX—This attribute can be increased to the species maximum, as explained later.

CHA—As shown later, Mikhail's CHA will rise and fall with events.

LEN—As with INT, Mikhail is stuck with his current length. He is assumed to have finished his growth by the time he enters play.

BLD—Though difficult, it would be possible for Mikhail to change his BLD by 1 point (either up or down). See Increasing Characteristics later in this chapter for further details.

SIZ—Unless his BLD changes, Mikhail's SIZ will remain fixed.

TSC—As Mikhail's TSC is non-zero to begin with, there is no limit to how much he may increase this characteristic through training and experience. Unlike the characters with a TSC of 0 (for whom TSC is not trainable) the sky is the limit for Mikhail in this area.

TPR—Here again, the sky is the limit, though training this characteristic is both expensive and time consuming.

2.1.1 Maximum And Minimum Characteristics

No characteristic save TSC and TPR may be increased by any means save cyborging (see Chapter 11, Hegemonic Technology) beyond the maximum amount rollable on the characteristic dice plus the number of dice rolled (plus one if a positive modifier is present). Thus, a human may not have a dexterity higher than 21 (=18+3), and a Korli with dexterity rolled on 3D6+6 may not have a dexterity higher than 28 (= 24 + 3 + 1).

The minimum characteristic possible for any reason is the number of dice rolled (for example, 3 for human CON). No characteristics save END and WIL may be reduced below this point voluntarily. If WIL is reduced below zero, however, the character dies, and no amount of medical assistance will prevent his death or later restore him to life.

2.2 ABILITIES AND HOW CHARACTERISTICS INFLUENCE THEM

Each character has various abilities which he will be able to improve through training and experience. His characteristics will, however, influence how well he will do in each type of ability at the start of his career.

Each formula gives a percentage add or subtract for each combination of characteristics. The resulting bonuses or penalties are the natural bonus (or penalty) for the character in the given category of skills. These formulae have been designed to produce bonuses of 0 or 1% for humans with the normally expected characteristics' rolls.

2.2.1 Accuracy (ACC)

Accuracy is the ability to handle aimed weapons (such as bows, crossbows, pistols and rifles). Again, intelligence and dexterity are going to be important, as will self-confidence. But apart from the strength required to wield a given missile weapon, added strength will not affect the overall accuracy of fire. The formula for the Accuracy ability is as follows:

$$ACC = 2 \times (INT + DEX) + WIL - 52$$

Mikhail's INT of 17, WIL of 9, and DEX of 18 result in an ACCURACY bonus of +27%. Obviously, Mikhail is a natural rifleman...

2.2.2 Attack (ATT)

Attack measures the adventurer's added ability to strike at an opponent with a hand to hand or natural weapon (hands, teeth, feet, etc). The intelligence and dexterity of the adventurer greatly influence his ability to learn quickly and to adequately control his weapon. His strength will influence his ability to move his weapon faster, and to possibly brush aside any parries imposed between his weapon and its target. The will to succeed, and the self confidence that goes with a strong ego, will also improve his chances. The Attack ability formula is as follows:

$$ATT = STR + 2 \times (INT + DEX) + WIL - 63$$

Remember Mikhail? Checking the formula against Mikhail's characteristics, we find that his Attack ability as computed will be $12 + 2 \times (17 + 18) + 9 - 63 = 28\%$.

2.2.3 Damage (DAM)

Damage represents the ability to combine strength and mass to do more damage to an opponent than is ordinarily done by a hand-to-hand or natural weapon. Clearly, the stronger the individual the more damage he should do, all other factors being equal. And the more mass behind the blow (as represented by the SIZ of the individual) the greater the damage that blow should do. With both thrown weapons and hand held impact weapons, the additional damage is rolled anew with each successful blow.

STR+SIZ	ADDED DAMAGE (melee weapons)	ADDED DAMAGE (thrown weapons)
01-15	-1D4	-1D4
16-31	0	0
32-41	+1D4	+1D2
42-50	+1D6	+1D3
51-58	+1D8	+1D4
59-66	+2D6	+2D3
Each further +8	+1D6	+1D3

Mikhail has a SIZ of 20, and a STR of 12, for total of 32. Thus, consulting the table, we see that he has a damage bonus of +1D4.

2.2.4 Dodge (DOD)

Dodge is the adventurer's ability to avoid being where an attack is directed. The dodge ability, unlike the Martial Arts Evasion skill (described in detail in Chapter 5, Specialties and Skills), may not be used to avoid attacks with most modern high velocity or energy weapons (it may be applied against the taser and the shoulder fired rocket, both described in Chapter 4, Combat Skills). In addition, it may not be applied against area effect weapons (such as hand grenades - also described in Chapter 4). In addition, if the adventurer is immobilized, unconscious, or surprised, his dodge ability may not be employed.

A negative value for the natural dodge ability is treated as a zero dodge ability in combat (thus, it is no easier than normal for the attacker to hit a creature with a negative dodge ability).

2.2.4.1 HOW THE DODGE WORKS:

2.2.4.1.1 Applied versus a Single Opponent's Single Attack:

An attacker must subtract the defender's Dodge ability from his attack, PROVIDED that the defender could see the attack coming. If an opponent has a dodge ability of 14%, and the attacker has a 47% chance of hitting with a broadsword, then the attacker has only a 33% chance of hitting that opponent with his attack.

2.2.4.1.2 Applied versus Multiple Opponents:

When facing several foes or multiple attacks from a single opponent in one melee round, a character may apply all of his Dodge ability against one attack, hoping that all other attacks will miss, divide his Dodge among the attacks of all the opponents, or dodge some, but not all of his foes' attacks.

Thus, a character with a 40% Dodge against four attackers each of whom is attacking once in the melee round may apply all of his Dodge against one, or put whatever Dodge he wishes against each foe, so long as the total Dodge applied against all attacks in that melee round totals no more than 40%.

2.2.4.2 HOW DODGE IS INCREASED:

As a character's DEX or WILL increases, his Dodge ability will also increase. And each time that his Dodge saves him from an attack (i.e. the use of the Dodge ability resulted in an attack failing where it would otherwise have succeeded) the adventurer has a chance of increasing his Dodge ability by 1D10%. The player must roll the INT of the character or less on 1D100 in order for the Dodge ability to increase through use. This roll may be attempted once for each successful use of the Dodge ability during the course of an expedition, though the Dodge ability may only be increased once per expedition. (Thus if Mikhail Andreivitch used the Dodge ability three times in an expedition, the player running this character would have three opportunities to roll 17 or less on 1D100. And even if two of those rolls were made, the Dodge ability would only improve once for this expedition, by 1D10 percentile points).

NOTE: This rule is in total contrast to the usual experience increasing rules shown elsewhere.

If a character has no actual Dodge, it cannot be improved by this method until, through increase in DEX and/or WIL, the character acquires a Dodge ability.

The more intelligent and dextrous the individual, the greater his ability to learn quickly how to move his body and to actually perform the dodging maneuvers. Thus intelligence and dexterity will be the most important factors in determining the dodge ability. Self-confidence and sense of purpose as indicated by the WIL score will also be important, though somewhat less so. And finally, the build of the character (as an indication of how bulky or slim he is) will have an effect on the dodge ability - the bulkier the individual, the more heavily boned and heavy a frame he has, the less likely he will be to move that bulk quickly and gracefully out of the path of the incoming blow. The Dodge ability formula is as follows:

$$DOD = 2 \times (INT + DEX) + WIL - BLD - 42$$

Again, both Mikhail's INT and DEX come to his aid, and together with his lighter than average build, they help give him a dodge ability of 20%, despite his lower than average WIL. So when he has a chance to see the blow coming, Mikhail can reduce op-

ponent's chances of hitting him with ancient weapons by as much as 20%.

2.2.5 Hit Points (HIT)

Hit points are the measure of how much damage the character can take before he dies. The larger the individual, the more raw damage his body can take before it has sustained mortal damage. The blow that will kill a mouse, after all, will hardly stop a full grown kodiak bear. Thus the character's SIZ is the primary factor in determining his hit points. The next most important factor is the character's overall health (i.e., his CON). Next, the tougher the individual, the longer he can keep going despite what should be killing wounds. And finally, the will to live and to continue functioning despite damage will also be important. With these thoughts in mind, total hit points are determined as follows:

- (1) multiply SIZ by 2/3, and round fractions up;
- (2) multiply CON by 1/3, subtract 3, and round fractions up;
- (3) multiply END by 1/4, subtract 5, and round fractions up;
- (4) multiply WIL by 1/8, subtract 1, and round fractions down; (NOTE: Fractions are rounded down in this calculation, in direct opposition to the usual practice throughout the rest of this rule set, where fractions are typically rounded up).
- (5) add the results of calculations (1) through (4) and the result is the number of hit points that the character can sustain.

Mikhail is SIZ 20: calculation 1 yields $20 \times 2/3$ or $40/3$ which equals $13 \frac{1}{3}$. Fractions are rounded up, so that the final result in calculation 1 is 14. Mikhail's CON is 9: calculation 2 yields $(9/3) - 3 = 0$. Mikhail's END is 22: calculation 3 yields $(22/4) - 5$ or $5.5 - 5 = 0.5$, and rounding up yields a result of 1 in this calculation. His WIL is 9: calculation 4 yields $(9/8) - 1$ or $1/8$, which rounds down to 0. Thus Mikhail will have $14 + 0 + 1 + 0$ hit points for a total of 15 hit points.

2.2.6 Knowledge (KNO)

Knowledge includes all formal 'book' learning. Thus all of the scientific fields will be included in this category, as well as such skills as speaking, reading and writing languages. The most important factor in the knowledge ability is clearly the intelligence of the character. Strength of will will also be important, though less so than intelligence. With these factors in mind, the formula for the knowledge ability is as follows:

$$\text{KNO} = (2 \times \text{INT}) + \text{WIL} - 31$$

Mikhail's high intelligence and low average will yield a +12% bonus in this category.

2.2.7 Luck (LUC)

Luck may be described as the ability to fall into a compost heap and find a diamond. Unlike most the other abilities listed, Luck is given as a straight point value. Depending upon the difficulties or the odds involved, a player will have roll at or below some multiple (between one and six) for this characteristic on 1D100 in order to have 'made a luck roll'. This procedure is referred to elsewhere in the rules as a 'characteristic roll' (in this case, for LUC).

The luck of an individual in **OTHER SUNS** as in real life is not purely a matter of chance. Without the intelligence to exploit the opportunities that good fortune might provide, or the strength of character and will to exploit those opportunities, all the good fortune imaginable will do the character no good at all. The formula for luck is as follows:

$$\text{LUC} = (\text{INT} + \text{WIL})/2 \text{ (round fractions up)}$$

Mikhail's high intelligence more than compensates for his below average will, resulting in a luck value of 13 (well above average).

2.2.8 Manipulation (MAN)

This is the ability to work with small and intricate things as well as the ability to control large (and perhaps unwieldy) objects or vehicles. Thus, such skills as lock picking, trap removal, vehicular operations, and vac-suit operation are included in this broad category. It also covers the ability to work with small and delicate artifacts.

Above all else, intelligence and self confidence are necessary in this area. The dexterity to perform the task quickly and efficiently is the next most important, followed by the strength requirements of the task at hand. With these factors in mind, the formula for the manipulation ability is as follows:

$$\text{MAN} = \text{STR} + 2 \times (\text{INT} + \text{WIL}) + (1.5 \times \text{DEX}) - 68$$

(round fractions up)

Mikhail's slightly above average STR and his below average WIL very nearly cancel each others' effects, and his high INT and DEX lead to a manipulation ability score of 23%.

2.2.9 Observation (OBS)

Observational abilities allow the individual to detect and properly interpret subliminal sensory clues and to jump directly from the uncertain observation to the foregone conclusion, and to do so without error. They depend equally upon intelligence and self confidence. With these factors in mind, the formula for the observation ability is as follows:

$$\text{OBS} = 2 \times (\text{INT} + \text{WIL} - 21)$$

With INT of 17 and WIL of 9, Mikhail has an Observation bonus of +10%.

2.2.10 Parry (PAR)

To parry is to interpose a shield and/or weapon in the path of an attacking weapon in order to deflect its blow harmlessly to one side. Great strength will cover certain flaws of technique, allowing a strong fighter to parry through brute force alone; but strength is the least important component of the parry ability. The sure knowledge that one can perform the necessary maneuvers together with the intelligence to employ the proper parrying moves are also important. But as conscious thought has less to do with the parry than with the attack, INT is of lesser importance than WIL. The greater the size of the individual, the more area he must protect, and hence the harder for him to parry. But it is the dexterity of the adventurer, his raw speed of action, that is by far the most important factor in the parrying ability. With these factors in mind, the formula for the parrying ability is as follows:

$$\text{PAR} = (2 \times \text{DEX}) + \text{WIL} + ((\text{STR} + \text{INT})/2) - \text{SIZ} - 22$$

(round fractions up)

Mikhail's parry ability is only 13%, as his high intelligence is no longer such an important positive factor, and his SIZ now counts against him.

2.2.11 Persuasion (PER)

The persuasion ability modifies those skills related to the swaying of a crowd through voice and through force of personality towards whatever goals the adventurer wishes. Intelligence is of some importance in this ability, but far more important are the adventurer's CHA and WIL (measuring, respectively, his charismatic qualities and his force of will). With these factors in mind, the formula for the persuasion ability is as follows:

$$\text{PER} = \text{WIL} + (1.5 \times \text{CHA}) + (\text{INT}/2) - 32$$

(round fractions up)

Mikhail's high intelligence (17) and his above average persuasiveness (CHA=13) combine with his slightly below average WIL (9) to yield a bonus in this category of 5%.

2.2.12 Stealth (STE)

This is the ability to act surreptitiously and without detection. High intelligence and dexterity are favorable factors in this ability. A highly intelligent individual will learn more quickly from his errors, and will simply avoid the pitfalls into which a less intelligent individual might fall. But dexterity is every bit as important as intelligence. In addition, great size (both bulk and height), will be more difficult to hide than lesser size, so that a greater SIZ for a character must detract from his stealth ability. It will, after all, be far easier for a five foot tall individual to hide behind a bush than for a twelve foot tall individual to hide behind the same bush, all other factors being equal. And finally, over-

confidence in the game of stealth is dangerous — a little fear and uncertainty will aid, not hurt. With these factors in mind, the formula for the stealth ability is as follows.

$$\text{STE} = 2 \times (\text{INT} + \text{DEX} - \text{SIZ}) - \text{WIL} + 9$$

Mikhail's high INT and DEX (17 and 18 respectively) aid him considerably in this area. His average SIZ (of 20) is no more a hindrance than it is for any normal human being, and his below average WIL (of 9) actually helps him for a change. His Stealth bonus is, as a result of these factors, a mere (!) +30%.

2.3 INCREASING CHARACTERISTICS

Physical characteristics of a character will change only through training. Certain mental characteristics (WIL, TSC, TPR) can either be trained or increase through field experience. Living creatures being what they are, and training programs being what they are, training is not always successful.

In order for a given training attempt to be successful, the player must roll at or under $(5 \times (\text{Species Maximum}) - (\text{Current Characteristic}))$ on 1D100. If successful, the characteristic increases by 1 point.

2.3.1 Training Costs Of Characteristics

Char.	Cost per attempt	Notes
STR	200 smu	May only be increased through training up to the maximum of CON and BLD. Can only be temporarily increased above this level via the cyborging operations described in CHAPTER 11, HEGEMONIC TECHNOLOGY.
INT	—	May not be trained.
WIL	800 smu	An adventurer may be trained in WIL only by a member of his own species. The instructor must have mastered the Psychology skill (i.e. have that skill at the 90%+ level). And, unlike the training in other characteristics, training in WIL CANNOT be interrupted.
CON	300 smu	May only be increased through training up to the maximum of STR and BLD. Can only be temporarily increased above this level via the cyborging operations described in CHAPTER 11, HEGEMONIC TECHNOLOGY.
END	250 smu	Trainable to species maximum.
DEX	500 smu	Trainable to species maximum.
CHA	—	May increase only through experience. See note below.
LEN	—	May not be trained.
BLD	1000 smu	May only vary by 1 point from the original rolled value for the adventurer over the course of the character's life-span. It may not be increased beyond STR. The probability of decreasing the BLD of a character is identical to the probability of increasing the BLD.
TSC	400 smu	As there is no species maximum for TSC, the probability of successful training is different than for the other characteristics: the player must roll at or under the INT of the character on 1D100. If training is completed successfully, the characteristics improve as per improvement through use (see Chapter 6, Psionics and the Use of Will). Roll 1D20 to determine increase as follows: 1 = 4 point increase, 2-3 = 3 point increase, 4-6 = 2 point increase, 7-20 = 1 point increase.
TPR	400 smu	As there is no species maximum for TPR, the probability of successful training is different than for the other characteristics: the player must roll at or under the INT of the character on 1D100. If training is completed successfully, the characteristics improve as per improvement through use (see Chapter 6, Psionics and the Use of Will). Roll 1D20 to determine increase as per TSC.

NOTE: Charisma is subject to direct change only through experience as follows: successful leadership of any expedition may result in an increase in CHA — roll for improvement as per normal characteristic training, and if successful, CHA improves as per WIL (see above and Chapter 6); unsuccessful leadership may lose points of CHA — following a disaster, the leader must make a successful roll as per characteristic improvement, or lose points of CHA as per a WIL increase roll (see above and Chapter 6). Charisma may also be trained indirectly. For each 75% total increase in PERSUASION skills (not counting the PERSUASION ability bonus) the CHA of the character increases by one point. And for each 25% skill level increase above 50% the skill level in a character's primary subfield in his specialization the character's CHA increases by one point. Thus, by training in the PERSUASION skills, and/or by training in the character's primary field within his specialization, CHA may be increased indirectly through training.

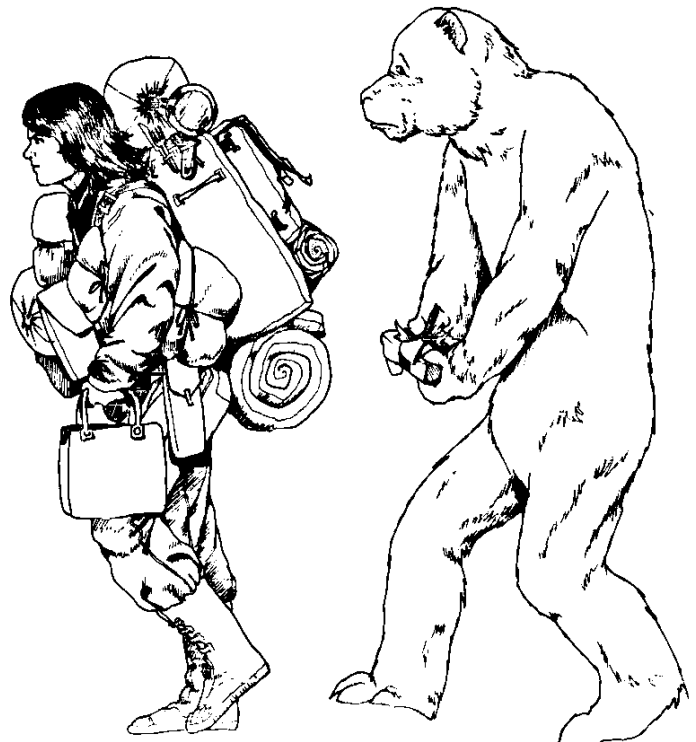
2.3.2 Training Time

Basic training costs in **OTHER SUNS** are 200 smu per week for eight hours of training per day for five training days per week. This can be subdivided into eight one hour sessions each day at 25 smu per week per session.

Training periods need not be contiguous; there may be interruptions in training without loss. 200 smu worth of training is the maximum that may be attempted in one seven day period. No additional training may be attempted in any one seven day period. Thus from the cost of training, one can determine the amount of time required (in weeks) for that training by dividing the cost by 200 SMU/Week. For example, an attempt to train END by one point costs 250 SMU, and thus the training program would require $250/200 = 1.25$ weeks, or 50 hours, to complete. Those 50 hours could be spent over a period of nine days (40 hours in the first five, then a two day break, followed by one 8 hour day and one 2 hour day) or they could be spread out over a ten week or longer period.

Training costs for characteristics (and skills also, for that matter) are affected by CHA (though the time required is not affected). For an above average CHA, the cost is reduced, and for a below average CHA, the cost is increased. Multiply CHA by 4, subtract the result from 142, divide by 100, and the result is the fraction of the specified training cost that the Adventurer must spend in order to be given the listed training. Thus, a character with a CHA of 15 will pay $(142 - (4 \times 15)) / 100 = 82\%$ of the normal training cost. Similarly, a character with a CHA of 7 would pay $(142 - (4 \times 7)) / 100 = 114\%$ of the normal training cost.

Remember Mikhail? His CHA of 13 will reduce the cost of any training he decides to undertake by 10%.



3. Mechanics and Melee

3.1 ENCUMBRANCE

The maximum encumbrance of a character is determined by his STR, his END, and his SIZ (and hence mass). The greater the strength, or endurance, the greater the load that can be carried without excessive effort. And the greater the body mass, the greater the load carryable, all other factors being equal. As the gravity varies from the native gravity for the adventurer, his carrying capacity will, of course, vary. And the weight (not the mass) of the adventurer must also be counted against his encumbrance limit.

The ENC (the maximum safe encumbrance for the Adventurer) is given by the following equation:

$$ENC = 1.5 \times M_B \times (1 + (0.01 \times (STR - 10))) \times (1 + (0.01 \times (END - 22)))$$

M_B is the body weight in kilograms of the Adventurer in his native gravity and fractions are rounded up to the nearest kilogram. ENC has a maximum value of $10 \times M_B$.

Mikhail has a STR of 12, an END of 22, and a SIZ of 20 (and his body mass is 80 kilograms in consequence). As Mikhail is human (and native to a 1 g world), he may carry a weight of $(1.5 \times 80 \times 1.02 \times 1.00)$ kg = 122.4 kg which rounds up to 123 kilograms. As Mikhail must carry his own weight around all the time in a 1 g gravitational field, he may actually carry only an additional 43 kilograms without penalty.

On Han (the homeworld of the Altani – described in Chapter 9, Intelligent Species) which has a surface acceleration of 1.48 gs, Mikhail would weigh nearly half again as much as he is used to (as would any equipment he might be carrying) and his carrying capacity is reduced somewhat as a result. On Han, Mikhail's mass would still be 80 kilograms, but his weight would be the equivalent (from his viewpoint) of 118.4 kilograms; similarly, the weight of any object he might carry would be increased by almost 50%. Thus his carrying capacity would be reduced to $(123 - 118.4)/1.48$ kilograms mass = 3.11 rounds up to 4 kilograms mass.

In a similar fashion, Mikhail's carrying capacity will be much increased on worlds with lower surface accelerations than his native 1 g. On a world with a surface acceleration of 1/3 g, Mikhail would have a remaining carrying capacity of 289 kilograms $(123 - (80/3)) \times 3 = 289$ kilograms).

In zero-g conditions, Mikhail's ENC increases to the maximum possible allowed value of ten times his body mass, for a total carrying capacity of 800 kilograms mass.

For each 10% (or fraction thereof) by which an Adventurer exceeds his ENC, the following penalties are imposed:

- subtract 2 from movement class;
- halve the dodge ability, and halve the skill percentage of any dodge ability based skill (such as the Martial Arts – Evade skill);
- halve the skill percentage with any hand-to-hand weapons;
- halve the skill percentage with any stealth skills;
- halve the skill percentage with the running skill;

(e) add 1 Action Point to the cost of ANY action attempted in melee; and

(f) subtract 2D4 END points from the character's total END for each hour that the condition continues.

The above listed effects are cumulative, so that if the character is carrying 30% of his encumbrance limit in extra weight his stealth skills would, for example, be reduced to $1/2 \times 1/2 \times 1/2 = 1/8$ their normal values.

3.2 TIME

The following terms define time throughout the rules of OTHER SUNS.

3.2.1 Game Week

This describes the passage of time for the characters in the L'Doran Hegemony. Training and other considerations are based on the game

week.

Due to the long periods of time involved in space travel in the game, players may wish to alter the ratio of game time to real time by some factor between 4:1 and 7:1 (or possibly higher). If there is only one group of characters being run as crew of a single ship, a time rate of 14 game days per real day is not out of place (as a typical deep space exploratory probe might take 100-120 days game time). If there are several ship crews, or large numbers of characters per player, a time scale of 4:1 (four game days per real day) may work better. In any case, the time scale should be adjusted to fit the type of campaign being played.

3.2.2 Turn

One TURN represents 10 melee rounds (2 minutes).

3.2.3 Melee Round

The melee round is 12 seconds long. One exchange of telepathic and/or psionic attacks, possible multiple hand to hand attacks and parries and possible repeated firings of missile weapons and movements happen during a melee round.

3.3 MOVEMENT

There are four scales of movement in OTHER SUNS: (1) Daily Movement (planetary surface), (2) Melee Movement, (3) Daily Movement (normal space), and (4) Daily Movement (Jump Space).

3.3.1 Daily Movement (Planetary Surface)

This is used on the referee's maps of a given world to record the movement of characters who are traveling from one place to another. A referee can come up with a dozen different travel rates, depending upon varying conditions of gravity, atmosphere, terrain, weather, etc., but the author offers the following simple scale:

3.3.1.1 BASIC RATES

3.3.1.1.1 Walking Movement:

This assumes an average of 8 hours of walking per day; 30 kilometers per day.

3.3.1.1.2 Marching Movement:

This assumes a forced march for 12 hours a day; 60 kilometers per day.

3.3.1.1.3 Ground Vehicle Movement:

This assumes all terrain vehicles driven for 12 hours per day (rotating drivers as needed); 600 kilometers per day.

3.3.1.1.4 Air Vehicle Movement:

This assumes either contragravity or jet propelled air vehicle flown for 10 hours; 14,000 kilometers per day, or 1400 kilometers per hour (a ground speed of roughly 790 nautical miles/hour).

3.3.1.1.5 Spacecraft Movement in Atmosphere:

This assumes that the spacecraft is sufficiently streamlined to permit high speed atmospheric flight; 6500 kilometers per hour (a ground speed of roughly 3700 nautical miles/hour).

3.3.1.1.6 Terrain Effects:

Rough terrain slows movement for walking or marching men, and for ground vehicles.

Major Rivers:

One day to cross unless bridged or a very shallow ford (or unless vehicles are amphibious).

Forests:

Reduce movement by 1/3 for walking and marching men, reduce vehicular movement by 2/3 (unless on road or trail).

Rolling Hills:

Reduce movement by 1/3 for walking or marching men, no reduction in movement for ground vehicles.

Mountains:

Reduce movement by 2/3 for all ground transportation, save that vehicular movement is reduced only 1/2 if there is a road through the mountains.

The above conditions are cumulative. Thus if a character attempts a forced march through forested mountains his speed will be reduced to $(2/3) \times (2/3) = 4/9$ of forced march pace (or $60 \times 4/9 = 26\ 2/3$ kilometers/day. Rounding fractions up gives a pace of 27 kilometers/day in this example.

3.3.2 Melee Movement

Each creature in **OTHER SUNS** is assigned a movement class between 0 and 12 inclusive. The movement class gives the number of movement points that it may expend in one melee round.

The number of meters moved per movement point expended is a function the creatures LEN and upon its locomotory mode (bipedal, quadrupedal, flyer, or other) as follows:

LEN	Meters traveled per Movement Point Expended			
	(Biped)	(Quadruped)	(Flyer)	(Other)
000-019	1	2	10	1
020-120	2	4	20	1
121-219	3	6	30	2
220-320	4	8	40	2
321-419	5	10	50	3
420+	6	12	60	3

Humans are movement class 8, as are most of the other intelligent races in the game, though there are exceptions: Ata'a are movement class 12 and Skiltaire are movement class 10 (both are treated as quadrupeds).

Vehicles and powered suits (when flying) are movement class 12 in melee, and their movement rate depends only upon their speed. For ground vehicles, the maximum increase in speed in one second is 10 kilometers per hour, the maximum decrease in speed in one second (other than in a crash) is 20 kilometers per hour. A table of speeds (and their corresponding values in meters per movement point) is given below:

Velocity	Meters/Movement Point
10 kph	3
20 kph	6
30 kph	8
40 kph	11
50 kph	14
60 kph	17
70 kph	20
80 kph	22
90 kph	25
100 kph	28
200 kph	56
300 kph	84
400 kph	112
500 kph	140
600 kph	168
700 kph	196
800 kph	224
900 kph	252
1000 kph	280

3.3.2.1 MOVEMENT PER TURN

In one turn, a character may advance cautiously at half his melee movement rate (allowing the average human to move cautiously at a rate of 120 meters per turn — roughly 2 miles per hour), a character may stroll at his melee movement rate (allowing the average human to walk 240 meters — roughly 4 miles per hour), or a character may run at two and one half times his melee movement rate (allowing the average human character to run 600 meters — roughly 10 miles per hour). When a character is running, he will expend 1D6 END during each turn that he runs in which he does NOT make his running skill roll (END points expended are recovered at a rate of 1D6 END points per 10 turns rest).

3.3.3 Daily Movement (Normal Space)

The speed of light is the only limit to velocity in normal space. Where a vehicle is undergoing a constant acceleration, the distance traveled in normal space is given by the following equation:

$$D = (0.5 \times A \times T^2) + (V \times T)$$

where T is the time, A is the acceleration, and V is the initial velocity of the vehicle before acceleration is begun.

Thus, with an acceleration of 9.8 meters per second per second (1 gravity) and an initial velocity of 0, a vehicle will travel approximately 36.6 million kilometers (roughly 22.7 million miles) in the first day of flight (1 day being equal to 86400 seconds).

In addition, the velocity V(T) of a vehicle undergoing constant acceleration is given by the following equation:

$$V(T) = (A \times T) + V_i$$

where V_i is the initial velocity, A is the acceleration, and T is the time interval.

Thus, in the preceding example, the velocity of the vehicle at the end of the first day of flight would be approximately 847 kilometers per second, roughly 526 miles per second, or about 1.9 million miles per hour (compare this with the velocity of escape from Earth's surface of approximately 7 miles per second, or about 25 thousand miles per hour).

3.3.4 Daily Movement (Jump Space)

In Jump space an FTL craft must maintain a minimum speed of 1.4 times the speed of light. Hegemonic starships have cruising speeds far faster than this — usually around 10 to 30 light-years per hour. The Hegemony occupies a region some 14,000 light-years across.

3.4 THE MELEE ROUND

A melee is a massed combat involving hand-to-hand and/or missile, energy or psionic weapons. Two systems for resolving such combats have been provided: a basic system for beginning players, and a more complex advanced system for experienced (or possibly masochistic) players.

3.4.1 Basic Combat**Actions Permitted:**

In a melee round, an Adventurer may perform any ONE of the following actions:

- (1) prepare a weapon for use;
- (2) move his full normal melee movement;
- (3) move up to half his normal melee movement and inject a drug or perform a similar simple non-combat manipulatory action;
- (4) move up to half his normal melee movement and fire a prepared missile weapon;
- (5) move up to half his normal melee movement and use telepathy or a psionic talent; or
- (6) move up to half his normal melee movement and engage in hand-to-hand combat.

In addition, an Adventurer may attempt to EVADE one physical attack.

3.4.1.1 TIMING OF ACTIONS

Actions are resolved in order of (2D6 + DEX Factor) rolls. An Adventurer with a LOWER roll acts first, Adventurers with equal rolls act simultaneously, and all Adventurers with a result of zero or less than zero on their rolls act simultaneously. This initiative roll is made separately for each Adventurer each melee round. DEX Factors are based on DEX as follows:

DEX	DEX Factor
27+	0
21-26	1
15-20	2
09-14	3
03-08	4

Number of Actions in Hand to Hand Combat:

In hand to hand combat, an Adventurer is allowed a total of two attacks or two parries or one attack and one parry per melee round.

Number of Shots with Missile Weapons:

Rates of fire given for missile weapons in Chapter 4, Combat, are given terms of the Action Point costs in the advanced combat system. The firing rates in the basic system are based on these delays as follows:

Action Point Delay	Firing Rate
1	12 shots/melee round
2	6 shots/melee round
3	4 shots/melee round
4	3 shots/melee round
5-6	2 shots/melee round
7-12	1 shot/melee round
13-24	1 shot/2 melee rounds
25-36	1 shot/3 melee rounds
37-48	1 shot/4 melee rounds
2D4-1	2 shots/melee round
2D4+3	1 shot/melee round

3.4.2 Advanced Combat

In the advanced combat system of **OTHER SUNS**, melees are divided into three phases: (1) Statement of Intent, (2) Melee movement of characters and resolution of attacks, and (3) Record updating.

3.4.2.1 PHASES OF THE MELEE ROUND

3.4.2.1.1 Statement of Intent

During this phase, referee and players state what their characters will be doing during the course of the melee round. Actions declared during this phase may later be aborted (OK, since the H'Reli closed the blast door in my face, I won't fire my blaster at him) but may NOT be altered (OK, since the H'Reli slammed the blast door in my face, and that robot just appeared out of nowhere, I'll shoot at the robot instead). Conditions, however, may be imposed on actions (OK, if the H'Reli is still on this side of the blast door, I'll fire my blaster at him, but if he gets out of my line of fire, I will shoot at the first hostile target of opportunity).

3.4.2.1.2 Melee Movement and Resolution of Melee, Missiles and Psionics

All attacks or actions (including movement) are resolved in order of increasing action points required to carry them out. The action requiring the fewest action points to accomplish starting from the current action point count within the melee round will be carried out first. Action points for various actions will be described later in this chapter. Each melee round lasts through 12 action points (each action point corresponding to the amount of activity occupying one second).

If one opponent disables another before the other's time to attack, the disabled character loses his attack. If both actions occur at the same cumulative action point count within the melee round then the attacks are assumed to take place simultaneously (and both attacks are resolved before any damage is taken by either combatant).

3.4.2.1.3 Resolution of Melee

The attacker rolls D100 to see if his attack was successful, and he rolls 1D20 for hit location (see end of this chapter for humanoid hit location chart). If the weapon is one against which the dodge ability can be applied the appropriate number of points of the defender's dodge ability, if any, may be subtracted from the attacker's chance of hitting. If the weapon is one against which a parry is possible (e.g. a sword or dagger) then the defender may attempt to parry (and he rolls D100 to see if he succeeded). If the attack roll is successful and either the attack is not one that can be parried or the parry is unsuccessful, then the defender takes appropriate rolled damage in the hit location indicated by the 1D20 roll; if the parry is successful then the parrying weapon or shield will absorb the damage instead of the defender (see Chapter 4, Combat Skills, for a further explanation of the effects of armor on combat). If the attack is unsuccessful and the parry is successful, and the defender is parrying with a weapon, then the attacker's weapon will be damaged by the defender's weapon.

3.4.2.1.4 Records Update

After all attacks have been resolved, the players and the referee should record all changes in status of their characters. This includes points of WIL and END expended, damage taken, Healing done, etc. They should also note all successful uses of skills for future experience gains.

The game then proceeds to the next melee round.

3.5 ACTION POINTS

3.5.1 Explanation Of Action Points

In a melee, the timing of certain events may be critical to the final resolution of the conflict. And certain activities will take more time than others. In order to determine the precise time at which various

events occur within the melee round, we are imposing 'action point' costs for various activities, and modifiers thereto.

Certain of these action point costs may seem inordinately high; the experienced referee may wish to modify some of the values given in light of experience. Weapon firing rates have, however, been set somewhat lower than is the case in real life in the interest of an improved character survival rate. As an example, the actual firing rate of an Uzi is in the neighborhood of 600 rounds per minute (or 10 rounds per second); no one, not even Bjoran, could expect to survive even two seconds in a fire fight with that amount of ordinance being expended.

3.5.1.1 ACTION POINT COSTS OF VARIOUS ACTIVITIES

Activity	Cost
Attempt to break down a door	2 per attempt
Close a normal door	1
Cycle an airlock mechanism	1 per 0.1 atmospheres pressure change
Employ a psionic talent or telepathy	Based upon DEX and upon END and WIL expended (see table below)
Expend one movement point on movement	
Normal horizontal movement	1
Up stairs	2 in non-zero g conditions, 1 in zero g
Down stairs	2 in non-zero g conditions, 1 in zero g
Up a ladder	3 in non-zero g conditions, 2 in zero g
Down a ladder	2 (under both zero and non-zero g conditions)
Get into armor	
Leather	10 per garment or location as appropriate
Cuirboilli	10 per garment or location as appropriate
Ring	15 per garment or location as appropriate
Chain	10 per garment or location as appropriate
Plate	20 per location
Modern Body Armor	
Type 1 (except for Webbing)	5 per garment or location as appropriate
Webbing	24 per location
Type 2	8 per garment or location as appropriate
Type 3	12 per garment or location as appropriate
Environmental Suit	10
Space suit	10
Light Combat Suit	90 (1.5 minutes)
Scout Armor	600 (10 minutes)
Command Armor	600 (10 minutes)
Marauder I Armor	1200 (20 minutes)
Marauder II Armor	1800 (30 minutes)
Get out of armor	
Leather	5 per garment or location as appropriate
Cuirboilli	5 per garment or location as appropriate
Ring	8 per garment or location as appropriate
Chain	5 per garment or location as appropriate
Plate	12 per garment or location as appropriate
Modern Armor	
Type 1 (except for Webbing)	5 per garment or location as appropriate
Webbing	24 per garment or location as appropriate
Type 2	8 per garment or location as appropriate
Type 3	12 per garment or location as appropriate

Environmental Suit	10
Space suit	10
Light Combat Suit	45
Scout Armor	240 (four minutes)
Command Armor	240 (four minutes)
Marauder I Armor	600 (ten minutes)
Marauder II Armor	960 (sixteen minutes)
Open or close an airlock door	5
Open a normal door	2
Prepare a weapon for use	
Drawing a weapon from a scabbard	3
Drawing a pistol from a holster	2
Unlimbering a slung weapon	3
Nock an arrow	4
String a bow	6
Cock a crossbow	
Light crossbow	15
Medium crossbow	30
Heavy crossbow	45
Reload a modern weapon	
Revolver	2 + 2 per round of ammunition
Other	2D4-1 or as indicated for specific weapon (may vary)
To use any weapon	
First time against particular target	Based upon DEX (see table below)
Second missile fired at target	Based solely upon weapon fire delay (see Chapter 4, Combat Skills, for list)
Non-psionic, non-missile weapon	As per first use of weapon, modified by LEN of attacker and length of weapon (see table below)

Other activities should be assigned action point costs on a basis of one action point corresponding to roughly one second's activity by a normal human being.

3.5.1.1.1 DEX modifier to Action Point Cost of an Attack

DEX	Modifier
03-08	+4 Action Points
09-14	+3 Action Points
15-20	+2 Action Points
21-26	+1 Action Points
27+	+0 Action Points

3.5.1.1.2 The Effect of Expenditure of WIL or END

For each five (5) points of END expended (or fraction thereof) to launch an attack, add one (1) action point to the cost in time of the attack. And for each point of WIL expended in an activity, add one (1) action point to the cost in time of the attack.

3.5.1.1.3 Wielder LEN modifier to Action Point Cost of an Attack

LEN	Modifier
001-100	+4 Action Points
101-200	+3 Action Points
201-300	+2 Action Points
301-400	+1 Action Point
401+	+0 Action Points

3.5.1.1.4 Weapon Length modifier to Action Point Cost of an Attack

(for use with non-missile, non-psionic weapons only)

For a weapon of length less than 1.0 meters, add +3 Action Points.

For a weapon of length greater than or equal to 1.0 meters and less 2.0 meters, add +2 Action Points.

For a weapon of length greater or equal to 2.0 meters, add +1 Action Points.

3.5.2 Limit To Actions Per Melee Round

No action or combination of actions whose total action point cost exceeds 12 may be carried out in a single melee round. Actions (or combinations) of actions taking longer will be completed in later melee rounds.

Suppose, for example, that a character wished to enter a spaceship through an airlock in deep space. First, he would open the outer airlock

door (5 action points required). Next, expending one movement point, he enters the airlock (1 action point required). Closing the door behind him (an additional 5 action points), he then cycles the airlock from zero pressure up to 1 atmosphere pressure (requiring 10 action points). Opening the inner door takes another five action points, and then he will expend one movement point (for another action point) to leave the airlock. The total required time is 27 action points (27 seconds). At the end of the first melee round (12 action points expended) he is inside the airlock, and the pressurization has begun (1 action point's worth). The first nine action points of the second melee round are spent waiting for pressurization to be completed, and the remaining three action points of the round are spent watching the inner airlock door open. Finally, in the third melee round, at the time for expenditure of the third action point, the adventurer is able to leave the airlock. While waiting in the airlock, or course, the character could perform other actions. He only expends 2 action points himself during the two and a fraction melee rounds in movement, after all, and he is simply standing around waiting for doors to open and shut or the lock to cycle the rest of the time involved.

When involved in hand-to-hand combat, a character has few options; he may attack, he may parry, and he may attempt to evade an incoming attack. He may not expend action points in simply any desired fashion. He may not, for example, break off hand-to-hand combat (expending action points to employ movement points to flee from his opponent) without allowing his opponent a 'free' attack (one that cannot be parried or dodged, but that can be evaded via the Martial Arts/Evade skill) at +25% to the attacker's success probability (attacking from an advantageous position) at his retreating back. A character may attack an approaching foe psionically and then engage him in hand-to-hand combat in the same melee round, provided that he has sufficient time remaining in the melee round to allow for his expenditure of action points devoted to the psionic attack and to the physical weapon attack. However, a character who starts a round physically engaged in melee may either attack and defend normally or defend normally and attack psionically, but not both.

In hand-to-hand combat the action points required for the character's physical weapon attack indicate when he may initiate an attack. Further attacks are delayed by equal action points. For example, a character with a DEX of 15 (+2 action point modifier), a LEN of 180 (+3 action point modifier), and a weapon shorter than one meter in length (+3 action point modifier) would be able to strike after 7 action points are expended in the attack. A second attack could then be made 7 action points later (or in the second action point of the next melee round). These action points costs for ancient melee weapons also indicate the time lapse required between successive attempted uses of the parry skill. Thus, in our example, after one parry had been attempted another parry could not be attempted with the weapon until 7 action points (seven seconds) had passed. The attack and parry are assumed to occupy the character's mind sufficiently during the action point expenditure period that he can do little else except employ his dodge ability, and possibly attempt to use the Martial Arts/Evade skill.

3.6 HIT LOCATIONS AND WOUNDS

3.6.1 Hit Locations

As stated previously, the attacking character must roll 1D20 for the hit location of the target. The hit location of the target is the area of the body a blow or missile actually hits. The following table gives the roll of 1D20 necessary to hit a specific area together with the fraction of total hit points and total END points for that location.

HUMANOID HIT LOCATION TABLE

D20	Specific Location	HIT and END as Fraction of Total
01-02	Head	0.25 (round fractions up)
03-05	Right Arm	0.30 (round fractions up)
06-08	Left Arm	0.30 (round fractions up)
09	Chest	0.45 (round fractions up)
10-12	Abdomen	0.40 (round fractions up)
13-16	Right Leg	0.35 (round fractions up)
17-20	Left Leg	0.35 (round fractions up)

Mikhail has an END of 22 and has a total of 15 hit points. Thus his Head will have 5 HIT and 6 END points, each arm will have 5 HIT and 7 END points, each leg will have 6 HIT and 8 END points, his abdomen will have 6 HIT and 9 END points, and his chest will have 7 HIT and 10 END points.

3.6.2 Endurance Points

Endurance points represent in part the adventurer's ability to function despite pain and the ability of the adventurer to absorb physical punishment without taking any lasting damage. When the total END value of an adventurer has been reduced to zero or less, that character is unconscious, and will remain so until his current END point total increases above zero (END points lost are recovered at a rate of 1D6 per 10 turns of rest — running or fighting, even with modern missile weapons, does not constitute rest). In addition, when sufficient END damage has been done, physical damage will result.

The total of END points for all locations will exceed the total END of the character. If the current total END is reduced to below zero, the magnitude of the resultant END is taken, divided by 2, and treated as an attack vs CON (see Chapter 6, Psionics and the Use of Will for a detailed description of the system employed for such an attack). If the attack is successful, the CON is reduced by the full amount of the attack and an equal number of hit points damage is done, otherwise half damage is done. If CON is reduced to 0 or less in this fashion, the character will remain unconscious, and in a coma until CON recovers to 1 or above. CON is recovered at a rate of one (1) point per week of rest following recovery from all hit point damage and END damage. Hit points lost are recovered at a rate of one (1) point per week of rest.

Remember Mikhail Andreivitch (END 22, CON 9)? If he is subjected to an attack that reduced his END to -12 he would be subjected to 12/2 = 6 point attack vs CON. If the referee rolls at or under (Strength of Attack) — (Strength of resisting characteristic) + 10 on 1D20 then the attack is successful (and Mikhail would have his CON reduced by 6 points and he would take 6 points damage to his total hit points); otherwise it is unsuccessful, and Mikhail would only take half damage (rounding fractions up — for 3 points of damage to CON and total hit points). In either case he would lose consciousness until his total END becomes 1 or greater (and as END recovers at a rate of 1D6 per 10 turns, he could expect to recover in approximately 40 turns, or in approximately 1 hour and 20 minutes).

3.6.2.1 THE BLUNT OBJECT RULE

Each location of an adventurer has a specified number of END points, based on the character's total END. When the adventurer is struck by a fist, foot, club, or other blunt instrument, deduct the damage rolled from the END points for that location before deducting any points from the HIT points for that location. Blunt object attacks of this kind do not deduct from total END however — only from the END for the given location struck. Thus, if an arm has 6 END points, and 5 HIT points, a blow from a club that does 10 points of damage will reduce the arm to -4 END points and to 1 HIT point, and will reduce total hit points by 4, but will not reduce overall END.

3.6.2.1.1 END Points Exceeded in Any One Location

If the adventurer's head is reduced to zero or fewer END points, the adventurer loses consciousness until the END point total for his head is at least one.

If the chest or abdomen is reduced to zero or fewer END points, the adventurer is rendered incapable of fighting with non-missile weapons, or talking, or employing any psionic talent (with the exception of Control of Self — see Chapter 6, Psionics and the Use of Will for further details) or telepathy; the character may still move, though only at half normal melee movement speed.

If an arm is reduced to zero or fewer END points, the adventurer is no longer capable of using a weapon with that arm; the character may continue to fight otherwise.

If a leg is reduced to zero or fewer END points, the adventurer's melee movement class is halved but he may continue standing; if two or more legs are so reduced, the adventurer is reduced to movement class 1.

3.6.2.1.2 Recovery Rate of END Loss

END is recovered at a rate of 1D6 points to total END per 10 turns of rest, and 1D6 points per location per 10 turns of rest.

Thus, at the end of 10 turns of complete rest, a character would recover 1D6 END to total END, and 1D6 END to each location (each arm, each leg, his head, chest, and abdomen, in the case of a human). Damage done to CON as a result of reduction of END below zero recovers at a rate of 1 point per week of rest, and recovery does not begin until all damage to hit points and END has been restored (either through medical attention or through the action of time).

A successful First Aid skill roll will double the healing rate for one 10 turn period. The First Aid skill may only be so employed once successfully per 30 turn period on any one given adventurer.

3.6.3 Hit Points

Each of the areas has a certain amount of hit points, dependent on the total Hit Points of the character, as shown above. The total Hit Points of the various areas often add up to more than the Hit Points of the character. However, when the character has taken sufficient damage to surpass his total Hit Points he is 'dead'. That is, his heart has stopped and he is no longer capable of surviving without total artificial life support. In this state, irreversible brain damage will set in within two turns (4 minutes). It is possible that no area of his body may have been completely disabled, but he will still be 'dead'. And unless he is treated by a medical doctor within the two turn period (before the irreversible brain damage sets in) he will be truly dead. This time limit can be extended through the use of metabolic inhibitor drugs (see Chapter 11, Hegemonic Technology, for further details). A character that takes damage equal to four times his total hit points is dead, and it is assumed that sufficient damage has been done to the brain and nervous system (both central and peripheral) that no amount of medical help can possibly revive him.

Mikhail, with 15 total Hit Points, has a total of 40 hit points in all limbs. Fifteen points of damage will stop Mikhail's heart in such a way that normal first aid will NOT restart it. And 60 points of total damage done will do sufficient damage to the nervous system that Mikhail's revival, even with the advanced medical technology of the L'Doran Hegemony, would be impossible.

3.6.3.1 NOTES ON DAMAGE RESULTS

In addition to hit point damage to the indicated target area modern high energy and high velocity missile weapons will do damage to total END equal to the total damage that penetrated armor. If total END is reduced to zero or to less than zero, the character loses consciousness and, as indicated earlier, damage will be done to total hit points and to CON.

Where E is the END of the character prior to being hit, and D=the amount of damage done by the hit, D/E is the probability that the character will go into shock (resulting in death in 6 turns unless proper medical treatment is applied — see Chapter 11, Hegemonic Technology).

3.6.3.2 HIT POINTS EXCEEDED IN ANY ONE LOCATION

If the Hit Points in the head are exceeded, the character will lose consciousness and will die in 2 turns unless healed (either through drugs, first aid, or other medical attention).

If the Hit Points in the chest or abdomen are exceeded, the character loses the use of any attached limbs, and must fall to the ground, though he may continue to move (by crawling — at a rate of 1 meter per movement point expended, and at half his normal movement class). If at least 2 points of medical repair have not been done within 5 turns, the character will bleed to death. The character will not be able to use any weapon other than modern missile weapons or psionic weapons. He may launch psionic attacks, and he may perform first aid or medical work on himself.

If the Hit Points in any leg are exceeded, that leg is useless, and the character may not use that leg to move. If a biped, he must make a DEX x 5 roll or less on 1D100 each round in order to move by hopping. If the character has four or more locomotory limbs, he may continue to move (at the speed of a biped only) until a sufficient number of his legs have been rendered similarly non-functional that he no longer has full support for his body (loss of the use of all limbs on one side of the body). When both legs of a biped or all legs on one side of a four or more legged creature have been so damaged the character will fall to the ground.

If the Hit Points in any arm are exceeded, that limb is rendered useless, and any device carried but not attached to the arm will be dropped. The character may continue to fight with his other arm or arms, as the case may be.

3.6.3.3 LOCATION RECEIVES 8 MORE POINTS THAN AVAILABLE

If the head takes 8 more points of damage to hit points beyond those available, massive damage has been done to the brain, resulting in instant and irremediable death.

If the chest or abdomen takes 8 more points damage than the available points, the character's heart stops and he dies. Normal first aid will not restart a heart so stopped. Only treatment by a Medical Doctor or by a psionically talented healer will save the character and even this aid must be provided within two turns — before brain death occurs.

A limb hit for 8 points more than it can take is considered to be either severed or irrevocably maimed. Unless surgery or psionic healing is possible within 30 turns, the limb will be lost. Maimed or lost limbs may, however, be regrown (see Chapter 11, Hegemonic Technology). Once a limb has taken 8 more points than it has hit points, no further damage done to that limb is deducted from the total hit points of the character — there is, after all, nothing one can do worse than amputating the limb (either through cauterization via blaster or laser, or

through severing the muscle via sword cut). A character who has lost a limb in this fashion will go into shock and die in 6 turns unless he receives proper treatment (see Chapter 11, Hegemonic Technology).

3.6.3.4 DAMAGE HEALING RATES

Without medical or psionic treatment, a character will recover from wounds at the rate of 1 Hit Point per game week in each location wounded. Damage to total hit points recovers at a rate of 1 Hit Point per game week of rest (during which no strenuous activity such as combat allowed). Damage done to CON recovers at the same rate, but recovery from CON damage does not begin until after the character has recovered from all hit point and endurance point damage.

4. Combat

4.1 NOTES ON COMBAT

4.1.1 Success Chance

The Adventurer has certain success probabilities for each of his attacks and parries, based upon the basic success chance for the culture with each given weapon and modified by his natural abilities in Attack, Accuracy, and Parry. The basic success chances for all attacks or parries with melee weapons are given later in the next section. The natural ability modifiers are applied only once to the basic chance to hit, however. Thus an Adventurer with an Attack ability of 7% using a 12% base weapon would attack with a 19% success chance. If, as a result of training and experience, his success chance with the weapon improved by 4%, his new success chance would be 19+4=23%, not 19+4+7=30% (because his natural ability adds only ONCE to his success chance).

A roll of 01 on 1D100 always means a successful attack or parry. A roll of 00 on 1D100 always means an unsuccessful attack or parry.

4.1.2 Basic Weapon Success Probabilities

Most weapons (or shields) can be used with a basic success probability in excess of 6% in attack and parry where applicable. The basic success chances (ordered alphabetically by weapon or shield class and by success probability) are as follows:

Weapon or Shield Class	Base %
Axes, one handed	18%
Axes, two handed	15%
Clubs, one handed	30%
Clubs, two handed	24%
Crossbow	12%
Entangling Weapons, one handed	12%
Entangling Weapons, two handed	6%
Javelin, thrown	18%
Knives	30%
Mortars	6%
Muscle powered bows	6%
Natural Weapon augmentors	33%
Natural Weapons	36%
Parrying weapons (Jitte, Sai)	6%
Pistol, machine	6%
Pistol, recoil type	15%
Pistol, recoilless type	24%
Rifle, automatic	10%
Rifle, recoil type	24%
Rifle, recoilless type	30%
Shield, heater	15%
Shield, kite	21%
Shield, round	12%
Shield, tower	27%
Shoulder fired rocket	9%
Sickles, one handed	18%
Sickles, two handed	12%
Slings	6%
Spears, one handed	18%
Spears, one or two handed	15%
Spears, two handed	21%
Swords, one handed	15%
Swords, one or two handed	12%

Swords, two handed	9%
Submachine gun	9%
Thrown objects	30%
Thrown dart	15%
Thrown hatchet	15%
Thrown knife	15%
Whips/Flails, one handed	18%
Whips/Flails, two handed	12%

Base %	Weapon or Shield Class
36%	Natural Weapons
33%	Natural Weapon augmentors
30%	Clubs, one handed; Knives; Rifle, recoilless type; Thrown objects
27%	Shield, tower
24%	Clubs, two handed; Pistol, recoilless type; Rifle, recoil type
21%	Shield, kite; Spears, two handed
18%	Axes, one handed; Javelin, thrown; Sickles, one handed; Spears, one handed; Whips/Flails, one handed
15%	Axes, two handed; Pistol, recoil type; Shield, heater; Spears, one or two handed; Swords, one handed; Thrown dart; Thrown hatchet; Thrown knife
12%	Crossbow; Entangling Weapons, one handed; Rifle, automatic; Shield, round; Sickles, two handed; Swords, one or two handed; Whips/Flails, two handed
9%	Shoulder fired rockets; Swords, two handed; Submachine gun
6%	Entangling Weapons, two handed; Muscle powered bows; Parrying weapons (Jitte, Sai); Pistol, machine; Mortars; Slings

4.1.3 Weapon Types And Special Damages

There are three basic types of ancient weapons: blunt (crushing) weapons, slashing weapons, and thrusting weapons. The blunt object rule (see Chapter 3) applies to any damage done by a blunt weapon. No damage is done by a thrusting weapon (or a combined slashing/thrusting weapon used in thrusting mode) either to the target or to a parrying weapon if the attack is successfully parried unless the attack is a critical hit (to be defined in this section).

Certain special damages are done by these weapons when the attack roll is 1/10th or 1/25th the necessary roll (rounding fractions up).

4.1.3.1 CLEAN BLOW

In a blunt weapon attack, if the attack roll made is 1/10th or less the amount necessary to hit (rounding fractions up), the damage rolled for the attack is done to the END points of the location and also to the HIT points of the location.

4.1.3.2 CLEAN CUT

In a slashing weapon attack, if the attack roll made is 1/10th or less the amount necessary to hit (rounding fractions up) double damage is done in the attack (before any damage bonus is added). A slashing/thrusting weapon used in the slashing mode will do clean cut damage on a roll of 1/10th or less the amount necessary to hit.



4.1.3.3 CLEAN THRUST

In a thrusting weapon attack, if the attack roll made is 1/10th or less the amount necessary to hit (rounding fractions up) triple damage is done in the attack (before any damage bonus is added). A slashing/thrusting weapon used in the thrusting mode will do clean thrust damage on a roll of 1/10th or less the amount necessary to hit.

Only the base weapon damage is tripled, not the damage bonus of the weapon wielder. The weapon remains embedded in the target in the event of a clean thrust, requiring a roll of (STR+DEX) x 3 or less on 1D100 for the weapon wielder to remove or a roll of WILL x 5 or less on 1D100 followed by a roll of (STR + DEX) x 2 or less on 1D100 for the target to remove the weapon. Weapon removal in melee requires 1D6+1 action points. Weapon removal outside of melee (and away from the distractions thereof) requires 1D3 action points. While a character has a thrusting weapon embedded in his body, he will continue to bleed from the location losing 1D6 points of END from that location AND from total END points each turn.

4.1.3.4 CRITICAL HITS

In any weapon attack, if the attack roll made is 1/25th the value required for a hit (round fractions up) a critical hit has been made. Ancient weapons which hit critically ignore the effect of ancient armor, modern body armor of armor types 1 and 2, and modern suit armor other than scout, command, and marauder suits. Modern body armor of type 3 and scout, command, and marauder suit armors take damage on critical hits from ancient weapons. Ancient weapons which hit critically do triple damage to parrying weapons or shields; damage above and beyond the hit points for the parrying weapon or armor points for the parrying shield is divided by three and taken directly against the location struck (armor being treated as indicated above). Modern weapons ignore all armor on a critical hit.

4.1.4 Fumbles

Whenever an Adventurer uses a weapon, he has a chance of ignoring the protective effects of an opponent's armor (in a critical hit). And at the same time, he has the opportunity to blunder, and possibly kill himself (or someone else he had not intended to harm — such as a member of his own team). Where C is success probability of an attack with a given weapon under the given situation, the probability of a fumble is (100-C)/25, rounding fractions up. A roll of 00 on 1D100 is a fumble, even if C is greater than or equal to 100%. In the event of a fumble, roll 1D100, consult the following table, and apply the specified result. If the result is inappropriate in the given situation, either apply a similar effect or ignore the fumble.

1D100	Type of Fumble	Results
01-12	Off Balance	Roll 5 x DEX or less on 1D100 or fall.
13-23	Stumble	Roll 3 x DEX or less on 1D100 or fall.
24-33	Lose Footing	Roll DEX or less on 1D100 or fall.
34-42	Weapon twists in hand	-1 END point to limb, roll 6 x DEX or less on 1D100 or drop weapon
43-50	Muscle strain in weapon arm	-1D3 END points to limb, roll 4 x DEX or less on 1D100 or drop weapon.
51-57	Weapon lost & muscle pulled	-3 END points to weapon arm, weapon thrown 1D3+1 meters in a random direction (roll 1D8 for direction).
58-63	Severely sprain weapon arm	-1D6 END points to limb, -1 HIT points to limb (and to total body), weapon dropped.
64-68	Twist Ankle	-(1D6+1) END points to limb, roll 3 x DEX or less on 1D100 or fall.
69-72	Severely sprained ankle	-2D6 END points to limb, -1 HIT points to limb (and to total body), roll WIL as percentage or fall.
73-76	Weapon Shatters/Jams	If weapon fumbled is an ancient weapon, it shatters. If it is a modern weapon, then it is jammed (requiring a successful use of the Armorer skill and 1 uninterrupted hour to repair the weapon).
77-81	Hit Self	Roll normally for damage. No evade or parry attempt permitted.
81-85	Hit nearest ally	Blow struck an ally — he has the option of attempting to evade or parry (if possible). Roll normally for damage. If no ally within range, hit self (no option to evade).
86-89	Clean Attack self	Roll for damage as appropriate for weapon type, no possibility of evasion or parry.
90-94	Clean Attack nearest ally	The blow is a clean blow, thrust or cut, and it hits nearest ally — he has the option of attempting to evade or parry (if possible). Roll for damage as appropriate for weapon type. If no ally within range, hit self (no option to evade).
95-97	Critical hit self	Roll for damage as per critical hit for appropriate weapon type. No attempt at evasion or parrying is permitted and damage is done to self.
98-99	Critical hit nearest ally	Roll for damage as per critical hit for appropriate weapon type. Ally has the option of attempting to evade or parry (if possible).
00	Critical hit self	As above, but do full possible damage.

4.2 WEAPONS

4.2.1 Melee Weapons Statistics

Weapon	Class	Type	Length	Mass	HP	Damage	Training Costs					Cost
							01-25	26-50	51-75	76-100	101+	
Broadsword	A1	S/T	0.8m	1.6kg	30	1D10	100	150	350	500	650	65
Cutlass	A1	S	0.6m	1.0kg	25	1D4+1	75	100	275	400	500	30
Epee	A1	T	0.9m	0.8kg	30	1D6	125	250	400	550	650	36
Foil	A1	T	0.8m	0.7kg	20	1D4+1	125	250	400	550	650	28
Longsword	A1	S/T	0.8m	1.0kg	30	1D6	100	150	350	500	650	40
Rapier	A1	T	0.8m	1.0kg	30	2D4+1	125	250	400	550	650	40
Saber	A1	S	0.7m	1.4kg	30	1D8	75	100	275	400	500	49
Scimitar	A1	S	0.9m	1.7kg	30	2D6	75	100	275	400	500	77
Small Sword	A1	T	0.7m	0.7kg	30	2D4	125	250	400	550	650	29
Bastard Sword	A1-2	S/T	1.0m	2.1kg	25	2D8/2D10	125	250	500	750	1000	105
Katana	A1-2	S	1.1m	1.4kg	25	2D6/2D8	125	225	475	625	900	385
Claymore	A2	S	1.2m	2.9kg	20	2D12+1	150	350	650	1000	1350	174
Greatsword	A2	S	1.6m	2.4kg	20	2D12	150	350	650	1000	1350	168
No-Dachi	A2	S	1.9m	2.2kg	20	2D12	150	350	650	1000	1350	1045
Zweihander	A2	S	2.0m	2.9kg	20	4D6+2	150	350	650	1000	1350	290
Bodkin	B1	T	0.3m	0.4kg	15	1D6+1	50	150	350	500	650	6
Dagger	B1	T	0.3m	0.3kg	20	1D6	50	150	350	500	650	5
Kukri	B1	S	0.5m	0.6kg	25	1D4+1	75	175	375	575	750	15
Long Knife	B1	T	0.6m	0.9kg	20	1D6+1	50	150	350	500	650	23
Stiletto	B1	T	0.3m	0.3kg	10	1D4+1	50	150	350	500	650	5
Tanto	B1	S	0.3m	0.3kg	20	1D4+1	75	175	375	575	750	25
Wakizashi	B1	S	0.7m	1.0kg	30	1D6	75	175	375	575	750	175
Battle Axe	C1	S	0.8m	2.1kg	30	2D6-1	100	150	350	500	650	17
Broad Axe	C1	S	0.6m	2.2kg	30	1D8+1	100	150	350	500	650	13
Double Bladed Axe	C1	S	0.8m	2.6kg	30	1D12	100	150	350	500	650	22
Hatchet	C1	S	0.5m	1.7kg	25	2D4-1	100	150	350	500	650	9
Tomahawk	C1	S	0.4m	1.5kg	25	1D6	100	150	350	500	650	6
Beaked Axe	C2	S	2.3m	2.9kg	25	2D8+3	100	150	400	600	800	67
Bearded Axe	C2	S	1.4m	2.3kg	25	2D6+1	100	150	400	600	800	32
Halberd	C2	S	2.2m	2.8kg	25	3D6+1	100	150	400	600	800	62
Naginata	C2	S/T	2.5m	2.5kg	25	1D12+3	100	175	425	650	900	63
Pole Axe	C2	S	2.1m	2.4kg	25	2D8+1	100	150	400	600	800	50
Scythe Axe	C2	S	2.4m	2.4kg	25	4D6-2	100	150	400	600	800	58
Jitte	D1	B	0.5m	1.4kg	45	2D4	125	250	500	800	1100	6
Sai	D1	T	0.5m	1.3kg	45	1D6	100	200	400	800	1000	6
Blackjack	E1	B	0.3m	1.2kg	15	1D4	50	100	250	400	550	5
Club	E1	B	0.8m	1.8kg	25	1D8	50	100	250	400	550	5
Light Mace	E1	B	0.5m	1.5kg	30	1D6	50	100	250	400	550	10
Tonfa	E1	B	0.6m	1.0kg	45	1D4	50	100	250	400	550	6
Warhammer	E1	B	0.7m	2.0kg	30	1D12	50	100	250	400	550	14
Heavy Mace	E2	B	0.8m	2.2kg	30	2D6	50	150	500	850	1200	25
Quarterstaff	E2	B	1.8m	1.5kg	30	2D6+1	50	150	500	850	1200	6
Tetsubo	E2	B	1.9m	2.9kg	45	2D10	50	150	500	850	1200	55
Brass Knuckles	F1	B	0.1m	1.0kg	15	+1D4	50	100	150	300	450	5
Bite	F1	S	0.0m	0.0kg	Head	1D4	25	50	100	200	400	0
Cestus, Light	F1	B	0.0m	0.5kg	15	+1	50	100	150	300	450	5
Cestus, Medium	F1	B	0.0m	1.0kg	15	+2	50	100	150	300	450	10
Cestus, Heavy	F1	B	0.0m	1.5kg	15	+3	50	100	150	300	450	15
Claw	F1	S	0.0m	0.0kg	Arm	1D4	25	50	100	200	400	0
Extender Claws	F1	T	0.2m	0.2kg	10	1D6+1	75	125	250	375	500	7
Fist	F1	B	0.0m	0.0kg	Arm	1D3	25	50	100	200	400	0
Kick	F1	B	0.2m	0.0kg	Leg	1D6	50	100	175	250	500	0
Warglove	F1	B	0.0m	1.5kg	15	+1D4+1	100	200	300	400	500	20
Short Spear	G1	T	1.3m	0.8kg	25	1D6	50	150	350	550	750	11
Short Trident	G1	T	1.3m	1.4kg	25	1D6+1	50	150	350	550	750	18
Long Spear	G1-2	T	1.5m/2.0m	1.2kg	25	1D8/1D12	75	200	400	600	800	24
Long Trident	G1-2	T	1.5m/2.0m	2.0kg	25	1D8+1/1D12+1	75	200	400	600	800	40
Boar Spear	G2	T	1.5m	2.0kg	25	2D6+1	100	250	500	700	900	30
Harpoon	G2	T	2.1m	1.9kg	25	2D6	100	250	500	700	900	40
Pike	G2	T	5.5m	3.5kg	25	2D8+2	100	250	500	700	900	105
Cat-o-nine tails	H1	B	0.8m	0.5kg	12	1D4+1	100	150	400	600	800	4
Chain flail	H1	B	0.9m	2.0kg	18	1D8	100	150	400	600	800	18
Whip	H1	SE	2.5m	1.4kg	15	2D4+1	100	250	550	800	1050	35
Grappling Chain	H2	BE	5.0m	3.0kg	15	2D8	100	250	550	800	1050	15
Bola	I1	BE	1.0m	1.0kg	8	1D8	100	200	400	600	800	3
Net	I2	BE	1.5m	2.0kg	10	1D4	100	250	550	800	1050	6
Nunchaku	I2	BE	1.2m	1.2kg	18	1D8+1	150	400	650	1350	2000	15
Battlescythe	J1	S	1.0m	2.1kg	25	1D10	50	100	250	400	550	25
Sickle	J1	S/T	0.4m	1.7kg	25	1D4+1	75	150	300	450	600	68

4.2.1.1 EXPLANATION OF HEADINGS

WEAPON: The common name for the weapon.

CLASS: A code for the general fighting class of the weapon combined with a number to indicate one handed use, two handed use, or either one handed or two handed use. The codes are as follows: (1) A = Swords; (2) B = Knives; (3) C = Axes; (4) D = Parrying weapons; (5) E = Clubs; (6) F = Natural weapons and Natural weapons augmentors; (7) G = Spears; (8) H = Whips and flails; (9) I = Entangling weapons; and (10) J = Sickles. 1 or 2 appended indicating one or two handed (some weapons may be used either one or two handed — this is indicated by 1-2 following the letter code above).

TYPE: A one or more letter code to indicate the fighting mode of the weapon in question. Where two distinct modes of use are possible for a given weapon, both modes are given separated by a '/'. Where the weapon is used in a combined mode the two modes are concatenated without any special separator character (for the example of the grappling chain, the result being type 'BE' is indicated). The types presented are as follows: (1) B = Blunt weapon, blunt object rule (see chapter 3) applies; (2) Entangling weapon (any hit on a location immobilizes that location, any head hit obscures vision, any leg hit results in loss of footing if the target attempts to move (or the STR+ DEX+ SIZ of the attacker overcomes the resistance of the defender — see Chapter 6, Psionics and the Use of Will for a further explanation of overcoming resistance of a target); (3) S = Cutting or slashing weapon; and (4) T = Thrusting weapon.

LENGTH: The effective length of the weapon in meters. For some weapons that may be used in either a one handed or two handed fashion the effective lengths may vary. Where this is the case, the effective length for one handed use is given first.

MASS: The mass of the weapon in kilograms (for use in determining encumbrance).

HP: The number of hit points damage the weapon can take before breaking.

DAMAGE: The damage done by the weapon in the event of a successful attack. For weapons that may be used in either a one handed or two handed fashion the damage may vary. In this case, the damage done in one handed use is given first. For certain natural weapon augmentors, damage is listed as +1, +2, etc. In these cases, the damage done is in addition to the damage done by the natural weapon, rather than in place of the damage done by the natural weapon being augmented.

TRAINING: The cost for one attempt to learn from training is given for each particular weapon where the starting percentage in that weapon lies in the specified range (01-25%, 26-50%, 51-75%, 76-100% or 101%+).

COST: The average cost of the given weapon. Individual weapons may cost more, or less, depending upon workmanship, quality of materials, or the gaudiness of the weapon case.

Mikhail's success chances with a knife are 58% in attack and 43% in parry (the basic chance is 30% and his ATT and PAR values are +28% and +13% respectively). A dagger is a 0.3 meter length weapon, so requires +3 action points to use. Mikhail is 180 centimeters tall, so adds +3 action points to his time with a dagger due to his reach. And Mikhail's dexterity is 18 for a final add of +2 action points. Thus Mikhail will be able to attack and parry with a dagger every 8 action points (or three times every two melee rounds, once the weapon has been drawn). Mikhail has 5 HIT and 6 END points in the head, each arm has 5 HIT and 7 END points, each leg has 6 HIT and 8 END points, he has 6 HIT and 9 END points in the abdomen, and 7 HIT and 10 END points in the chest.

Having reached legal adulthood (18 years of age for Humans on Novaya Amerika, Mikhail's homeworld), Mikhail has gone to the spaceport outside his home town of Landing. This is his first excursion into the Hegemony controlled territory in and around the spaceport, and his intentions are simple — get drunk and have a roaring good time. Not being a complete fool, Mikhail does not venture into the rough and tumble world of the port alone; he is accompanied by one of his street gang companions, Yitzak Golyurin. His first port of call is Happy Harry's Bar and Grill, a multi-species drinking establishment.

Moving down the dimly lit bar, Mikhail trips (or is pushed) against one of the drinkers. The drinker, a Bjoran some three meters tall and massing over fourteen hundred kilograms pushes Mikhail gently, throwing him several meters away onto an empty table. Now somewhat irritated, Mikhail hears a soft purring noise from one of the tables he passed just before he tripped. Looking in that direction, he sees several H'Reli. And he remembers that the noise he has just heard is what passes for laughter among these feline aliens, known throughout the Hegemony for their penchant for practical jokes. From across the room, he hears the voice of his friend, Yitzak, 'Hey, Misha! Why don't you bell the pussy cat?'

Being reasonably intelligent, Mikhail has a pretty good idea of what he is facing. The uniforms of the H'Reli at the table indicate that they are engineers aboard various of the smaller cargo carrying starships on the local circuit. A good sign — at least they aren't likely to be well trained fighters. As he glares at the H'Reli, one of them draws a long dagger out and begins ostentatiously picking his teeth with it. Mikhail grins, showing a set of perfect white teeth, and draws his own weapon as onlookers step back, giving the two prospective combatants room to maneuver.

(The H'Reli, one Srilurow, has STR of 17, an INT of 9, WIL of 9, CON of 17, END of 22, DEX of 21, LEN of 170, BLD of 15, and hence SIZ of 21 for a mass of 92.6 kg or 203.7 pounds, a TSC of 0 and a TPR of 3. He has 18 total hit points. His head and tail have 5 HIT points and 6 END points each, his arms each have 6 HIT and 7 END points, his legs each have 7 HIT and 8 END points, his abdomen has 8 HIT and 9 END points, and his chest has 9 HIT and 10 END points. His dodge ability is 12%. His action cost for attacks with the dagger is 7 action points, making him a trifle faster than Mikhail. Like Mikhail, he also has a +1D4 damage add. His skill with the weapon is also greater having improved somewhat through experience, and his attack and parry with the dagger are 86% and 73% respectively. Srilurow's leather uniform also acts as 2 points of armor protecting his arms, legs, chest, and abdomen).

Srilurow attacks first, and his roll of 67 would normally be low enough for a hit. But Mikhail, being no fool, is applying his full 20% ability against this first attack — and Mikhail will not be able to use his dodge ability again this melee round. He is also endeavoring to parry with his dagger — and the roll is 41, a success. Having used his parry, he may not attempt to parry again for 8 action points (or until action point 3 of the next melee round). His weapon is a thrusting type weapon and thus does not damage his opponent's weapon. But Mikhail doesn't really care — his main goal at the moment is to avoid being stabbed. Mikhail's roll, at action point 8, is 41 for his attack. Despite Srilurow's applying his full 12% dodge, this blow still hits. And Srilurow's parry roll is 88 — a miss. First blood goes to Mikhail. The hit location rolled is 8, (the left arm) and the damage rolled (on 1D6+1D4) is 6. However, due to the effect of Srilurow's heavy leather uniform, only 4 points of damage are done to his left arm. And this makes the H'Reli mad. Happy Harry, meanwhile, is diving for a phone to call the starport police.

In the second melee round, both combatants will attack twice, Srilurow at action points 2 and 9, and Mikhail at action points 4 and 12. Both may only employ their full dodge abilities once.

Mikhail applies his full dodge ability to Srilurow's first blow, reducing the chance of success to 66%. The roll is 65 — a hit. And since Mikhail parried at action point 7 of the previous round, he is not able to parry again until action point 3 of the second round. Thus he has no parry available, and the knife thrust is successful. Srilurow's blow lands at location 1 (the head) and the damage rolled is 3 (on 1D6+1D4). Mikhail's clothing would count as 1 point of armor on all locations covered, but he does not have any clothing covering his face. However, he does have a 5 HIT point head, so he is not in serious trouble. Yet.

Mikhail's blow at action point 4 is a hit, despite Srilurow's dodge. But Srilurow's parry succeeds and, as the blow was not a critical, Mikhail's weapon does not damage Srilurow's parrying knife (and Srilurow's weapon will block up 20 points of damage — more than enough to stop a normal hit with a dagger).

At action point 9, Srilurow strikes again — rolling a 00, FUMBLE. The fumble rolled is 61, severe sprain of weapon arm. And Srilurow takes 2D3 END damage and 1 HIT point damage to his right arm (for 1 HIT and 6 END point damage — he now has only 1 END point remaining in his right arm). In addition, his weapon is lost. Srilurow begins to draw a new dagger at action point 10, but it will require 3 action points to draw it out of its scabbard. Thus his replacement weapon will not be ready until action point 1 of melee round three.

At action point 12, Mikhail strikes again. Srilurow has already used his full 12% dodge this round, and he has no weapon available to parry, so he must trust to his luck (or rather, to Mikhail's poor luck). Unfortunately for Srilurow, Mikhail's next attack roll is an 05 — less than 1/10th the number required to hit. Mikhail's clean thrust results in triple damage. The dagger is a 1D6 weapon, and Mikhail rolls a 5. His damage add is not tripled, and his roll on 1D4 is a 2, so the total damage done is $3 \times 5 + 2 = 17$ points. The location rolled is 2 — a head hit. And Srilurow drops to the floor, a knife deep in his throat. (Srilurow had 5 hit points in the head — so any damage done to the head totalling 13 or more hit points results in instant death for Srilurow).

There is a stunned silence in Happy Harry's. Mikhail stoops down to retrieve his knife from Srilurow's throat, keeping a wary eye on the other H'Reli present as he does so. As they do not move to stop him he tries to leave the scene. Unfortunately for Mikhail, as he turns to leave the bar, he finds himself staring into the emission bell of a blaster pistol wielded by a local policeman.

"You're in a lot of trouble, boy, don't try and make things worse by resisting," the officer says, and proceeds to handcuff poor Mikhail.



4.2.2 Use Of Similar Weapons

An Adventurer who has learned the use of a given weapon of one class and type may begin use of any other weapon of the same class and type at 1/2 the skill level or at base plus bonuses, whichever is greater. For example, if Mikhail Andreivitch were to train in the use of dagger to the 140% skill level, he would be able to pick up any other one handed thrusting knife at the 70% skill level, even if he had never seen the particular style of knife before.

4.2.3 Attacking From Advantage

An attacker has a +25% chance of hitting an opponent who has lost his footing and fallen. Similarly, when an adventurer turns and flees from melee, his opponent is allowed one parting 'back shot' at +25% to hit. A totally helpless opponent can be killed with any weapon unless the attacker rolls a fumble.

An adventurer who has fallen, in addition to being attacked by opponents at +25%, has -25% chance of a successful attack with an ancient or hand-to-hand weapon. His parry chances are not reduced, nor are his attack chances with handguns, rifles, or any modern missile weapons.

4.3 LEARNING SKILLS

4.3.1 Through Training

In order to succeed in a training attempt, a player must roll at or under the larger of 100 - (current skill of character) + INT and INT on 1D100. If successful, the skill level increases by 1D6%. The time required for the training is 1 week per 200 smu cost.

4.3.2 Through Experience

In order to learn from experience, a player must roll at or under the larger of 100 - (current skill of character) + (number of successful uses of the skill during the expedition) + INT and INT. Each critical roll in the use of a skill counts as ten (10) successful uses of the skill, and each clean thrust, blow, hit or cut counts as five (5) successful uses of the skill. If successful, the skill level increases by 1D6%.

4.3.3 Total Increase Possible

There is no limit to the total increase possible via training between successful uses of the skill in the field.

4.3.4 Progressing To (And Beyond) 100% Ability

An adventurer may progress via training up to, and beyond, 100% Ability (so long as he can find a teacher with ability higher than his own and higher than 90%) and he can progress indefinitely from experience in the field.

4.3.5 The Use Of Charisma In Buying Training

The CHA of a character will influence the price he must pay to purchase training in any skill. The price paid is $[(142 - (CHA \times 5)) / 100] \times$ Listed Price. This does not reduce the time needed for training, merely the cost.

4.3.6 Mastering A Weapon

As soon as an Adventurer reaches 90% in any weapon or skill, he may teach it, at the usual training rates. He is called a Master of that weapon or skill.

Mikhail, while awaiting his day in court, contemplates his fight with Srilurow, and attempts to learn from it. He had a 58% attack probability with the dagger, and he struck three times, one of these successes being a clean thrust. His intelligence is 17, so his probability of improvement is $(100-58) + 7$ (the clean thrust counts for 5 successful uses of the skill) $+ 17$ (his INT) = 66% chance of improving his chance of hitting with a dagger. Mikhail rolls a 95, showing that some days it just doesn't pay to get out of bed.

He parried once with the dagger, so his chance of improving his dagger parry is $(100-43) + 1 + 17 = 75$. This time Mikhail rolls a 74, proving that he can learn from experience. The 1D6 improvement roll is a 1, and his dagger parry becomes 44% - indicating that he didn't learn all that much.

Mikhail used his dodge ability successfully once, and has a 17% chance of an improvement in this area. The 1D100 roll is 12, and Mikhail's dodge ability increases by 1D10. The roll is 2, indicating that Mikhail is having obvious difficulty in learning through experience. This is, however, no surprise to his friends.

4.4 MISSILE WEAPONS

The Missile Training Table and the Missile Statistics Table are in roughly the same format as the previous table, but weapon length is not pertinent, and range and delay between successive firings have been added to the weapon characteristics.

4.4.1 Missile Training Table

Weapon	00-25	26-50	51-75	76-100	101+
Blowgun	100	250	500	750	1000
Bow	125	250	500	750	1000
Crossbow	75	150	300	600	900
Javelin	100	200	400	600	800
Mortar	150	350	650	1000	1350
Pistol, machine	150	350	650	1000	1350
Pistol, recoil	100	200	400	600	800
Pistol, recoilless	75	175	350	500	650
Rifle, recoil	100	150	350	500	650
Rifle, recoilless	50	100	250	400	550
Rifle, automatic	100	250	550	850	1050
Rifle grenade	100	250	500	750	1000
Submachine Gun	150	300	600	900	1200
Shoulder fired rocket	50	100	200	400	600
Sling	75	150	300	600	900
Thrown object	50	100	200	400	600
Thrown Dagger	100	150	400	600	800
Thrown Dart	100	200	400	600	800
Thrown Hatchet	100	150	400	600	800

4.4.1.1 WEAPON TYPES AND MODES

Projectile weapon, One handed: Sling, Pistol (all varieties), Submachine guns, Rifle (recoilless types only).

Projectile weapon, two handed: Bow, Crossbow, Rifles (recoil type), Shoulder fired Rocket.

Projectile weapon, special: Blowgun, Mortar.

Thrown weapons: Dagger, Dart, Hatchet, Javelin, Thrown object.

4.4.2 Missile Statistics Table

Weapon Type	Weapon	Mass	HP	Damage	Cost	Range	Delay between firings	
Blowgun Bow	Blowgun	1.0 kg	5	1D6	5	12	10 AP	
	Compound bow	1.8 kg	15	2D8	200	150m	4 AP reload time	
	Composite bow	1.4 kg	12	2D6	180	120m	4 AP reload time	
	Longbow	1.4 kg	12	2D6	200	120m	4 AP reload time	
	Horse bow	0.7 kg	12	1D8+1	200	90m	4 AP reload time	
	Crossbow	Light	3.6 kg	20	1D10	160	120m	15 AP reload time
		Medium	5.2 kg	25	2D10	240	150m	30 AP reload time
		Heavy	6.8 kg	30	3D10	360	180m	45 AP reload time
	Javelin	Javelin	1.7 kg	20	2D8	20	30m	2D4-1 AP reload time
	Indirect fire	Mortar	40.0 kg	30	2D10+40	24000	1600m	2D4+3 AP reload time
Pistol, recoil type	.22 calibre	0.3 kg	10	2D4	150	100m	4 AP	
	.32 calibre	0.5 kg	10	2D6	200	100m	4 AP	
	.35 HiPower	0.5 kg	10	3D8-1	300	100m	4 AP	
	.38 calibre	0.6 kg	10	3D6	250	100m	4 AP	
	.357 magnum	1.2 kg	10	4D6	350	100m	4 AP	
	.45 calibre	1.1 kg	10	3D8	300	100m	4 AP	
	.44 magnum	1.4 kg	10	4D8	400	160m	4 AP	
	needler	1.0 kg	10	special	600	80m	4 AP	
	tangler	1.2 kg	10	special	450	80m	4 AP	
	taser	0.4 kg	10	special	500	5m	6 AP	
	Pistol, non-recoil type	Handblaster	0.8 kg	10	4D6	550	180m	4 AP
		LPC-1	1.1 kg	8	1D4	60	160m	1 AP
		LPC-2	1.2 kg	8	1D6	80	160m	1 AP
		LPC-3	1.3 kg	8	1D8	120	160m	1 AP
		LPC-4	1.4 kg	8	2D4	140	160m	1 AP
		LPC-5	1.5 kg	8	2D4+1	160	160m	1 AP
		LPC-6	1.6 kg	8	2D6	180	160m	1 AP
		LPP-1	1.0 kg	8	2D4	80	160m	3 AP
		LPP-2	1.1 kg	8	2D4+1	115	160m	3 AP
		LPP-3	1.2 kg	8	2D6	150	160m	3 AP
LPP-4		1.3 kg	8	2D6+1	185	160m	3 AP	
LPP-5		1.4 kg	8	2D8	220	160m	3 AP	
LPP-6		1.5 kg	8	2D8+1	255	160m	3 AP	
Magstunner		1.0 kg	10	special	1250	180m	4 AP	
SonicStunner		1.0 kg	10	special	1000	120m	4 AP	
Rifle, recoil type	.22 light	4.3 kg	12	1D8+1	500	240m	4 AP	
	.23 Stoner	3.8 kg	12	4D8	950	320m	4 AP	
	.24 Gruder	3.9 kg	12	6D6	1500	460m	4 AP	
	.30 M5 sniper	5.2 kg	12	5D8	2500	1000m	4 AP	
	.308	4.4 kg	12	3D8	650	200m	4 AP	
	Shotgun	3.1 kg	12	special	550	40m	4 AP	
	Grenade launcher	1.2 kg	6	special	1235	200m	2D4+3 AP reload time	
Rifle, non-recoil type	Blaster, Type 1	3.0 kg	12	4D8	1000	460m	4 AP	
	Blaster, Type 2	3.0 kg	12	6D6	1350	600m	4 AP	
	Blaster, Type 3	3.0 kg	12	8D6	2400	600m	4 AP	
	Blaster, Type 4	3.0 kg	12	10D6	3750	600m	4 AP	
	Blaster, Type 5	40.0 kg	12	8D8	8000	600m	4 AP	
	LRC-1	5.0 kg	10	2D4	580	380m	1 AP	
	LRC-2	5.2 kg	10	2D4+1	650	380m	1 AP	
	LRC-3	5.4 kg	10	2D6	720	380m	1 AP	
	LRC-4	5.6 kg	10	2D8	800	380m	1 AP	
	LRP-1	5.0 kg	10	2D6+1	870	380m	3 AP	
	LRP-2	5.2 kg	10	2D8	980	380m	3 AP	
	LRP-3	5.4 kg	10	2D8+1	1080	380m	3 AP	
	LRP-4	5.6 kg	10	3D6	1200	380m	3 AP	
	LTC-1	30.0 kg	12	2D6	2100	600m	1 AP	
	LTC-2	40.0 kg	12	3D4	2400	600m	1 AP	
	LTC-3	50.0 kg	12	2D6+1	2700	600m	1 AP	
	LTP-1	30.0 kg	12	2D8+1	3150	600m	3 AP	
	LTP-2	40.0 kg	12	3D6	3600	600m	3 AP	
	LTP-3	50.0 kg	12	2D8+2	4050	600m	3 AP	
	Rocket launcher, Shoulder Fired		12.5 kg	15	2D10+20	6500	1000m	2D4+3 AP reload time
Submachine gun	Ingram M19	2.8 kg	12	3D8+1	900	100m	*	
	Uzi Mark 7	3.5 kg	12	3D8-1	1200	200m	***	
Thrown object, Rock		0.5 kg	-	1D6	0	24m	6 AP	
Thrown Dagger	Throwing dagger	0.3 kg	18	1D6	7	24m	3 AP	
Thrown Dart	Dart	0.3 kg	12	1D4+1	5	24m	3 AP	
	Shuriken	0.3 kg	10	1D3	3	24m	6 AP (per set of three)	
Thrown Hatchet	Hatchet	1.5 kg	25	1D6	6	24m	4 AP	
Sling	Sling	1.0 kg	-	1D8	2	60m	2D4+3 AP reload time	

* - The rate of fire of the Ingram M19 is switch selectable to either 4 AP or 2 AP delays between bursts (firing three round bursts).

*** - The rate of fire of the Uzi Mark 7 is switch selectable to either 3 AP or 2 AP delays between bursts (firing three round bursts).

NOTE: For all laser weapons on the above table, the damages listed are for damage to armor only - only ONE HALF damage rolled is done to flesh. All laser weapons have abbreviated entries under the weapon type heading that begin with the letter 'L'.

4.4.2.1 EXPLANATION OF HEADINGS

WEAPON TYPE: The general class of the weapons involved. All missile weapons listed under a given weapon type are considered to be similar weapons for purposes of training and cross weapon use.

WEAPON: The name of the specific weapon described. Certain abbreviations are used in this table, their meanings are as follows: (1) LPC stands for Laser, Pistol, Continuous emission, (2) LRC stands for Laser, Rifle, Continuous emission, (3) LTC stands for Laser, Tripod, Continuous emission, (4) LPP stands for Laser, Pistol, Pulsed beam, (5) LRP stands for Laser, Rifle, Pulsed beam, (6) LTP stands for Laser, Tripod, Pulsed beam.

MASS: The mass of the weapon, in kilograms, empty.

HP: The number of hit points damage the weapon can take before breaking.

DAMAGE: The damage done by the weapon in the event of a successful attack. The values given for lasers are for damage to armor — only half the damage given is done to flesh.

COST: The average cost of purchasing the given weapon. Some weapons are not available to civilians except on the black market (roll 1D4+1 to determine the cost multiplier for the black market goods).

RANGE: This is the effective medium range in meters for the weapon in question. Thrown weapons are limited in range to the effective medium range. Modern projectile weapons can reach beyond the effective medium range at a cost in accuracy. Long range is half again as many meters as the effective medium range, extreme range extends from the end of long range out to twice the medium range.

DELAY BETWEEN FIRINGS: This is the number of action points delay required between successive firings of the weapon against a single target. Certain of the weapons listed are single shot, and in these cases the times given are for reloading the weapon.

4.4.3 Special Damages

4.4.3.1 CLEAN HIT

In a missile attack, when the attack roll made is 1/10th or less the amount necessary to hit (after situational modifiers are applied and fractions have been rounded up), the attacker is allowed to select the precise hit location. He may specify, for example, that location 20 (the end of the left leg — the foot on tailless humanoids) is struck by his clean hit.

4.4.3.2 CRITICAL HITS

When the attack roll made is 1/25th or less the amount necessary to hit (after situational modifiers are applied and fractions have been rounded up) a critical hit has been scored. Modern missile weapons (blasters, pistols, and the like) ignore all armor on a critical hit. Ancient missile weapons ignore the effect of ancient armor, modern body armor of armor types 1 and 2, and modern suit armor other than scout, command, and marauder suits. Modern body armor of type 3 and scout, command, and marauder suit armors take damage on critical hits from ancient missile weapons.

4.4.4 Firing At Protected Targets

The basic hit probability is not altered by the target being partially or completely covered. If the hit location rolled is one that is protected or under cover, the shot is assumed to have struck the cover instead of the target. In the event of a clean hit, however, the hit location is not rolled but is selected by the attacker, and thus an exposed location (if any) may be selected. In the event of a critical hit, any location may be selected and the armor protection of any cover is ignored. Thus even a target that is completely covered will take damage from a critical hit.

4.4.5 Situational Modifiers For Ancient Missile Weapons

Range:	
Medium Range	+0%
Long Range	Divide attack percentage by two
Extreme Range	Divide attack percentage by four

Firer:	
Moving	-25%
Evading	-25%
Blinded	-50%

Target:	
Moving	-25%
Immobilized	+15%
A vehicle	+25%

4.4.6 Situational Modifiers For Modern Weapons

Range:	
Point Blank	+35%
Short Range	+15%
Medium Range	+0%
Long Range	Divide attack percentage by two
Extreme Range	Divide attack percentage by four

Firer is:	
Braced	+09%
Moving	-15%
Evading	-15%
Blinded	-50%

Target is:	
Moving	-06%
Evading	-25%
Immobilized	+15%
A Vehicle	+25%

Weapon firing mode:	
Automatic fire	-25%
Wide beam (energy weapon)	+25%
Gyrostabilized weapon	+10%

4.4.6.1 WIDE BEAM

Beam weapons fired on wide beam mode expend FOUR charges instead of the usual one. If the beam hits a target more than one hit location will be damaged. Roll normally on 1D20 for hit location then roll 1D6 twice. Subtract the first roll from the 1D20 roll (treating numbers less than 1 as 1) and add the second roll to the 1D20 roll (treating numbers greater than 20 as 20). All hit locations in this range take equal damage. For example, if the 1D20 roll is 9, the first D6 roll is 4, and the second D6 roll is 2, then locations 5 through 11 would take damage. Laser weapons may NOT be fired in wide beam mode.

4.4.6.2 RANGE

The range given for each of the modern weapons is the medium range limit for the weapon. Point blank range is 0-5 meters, short range extends from the end of point blank range out to one-fourth of the medium range. Long range extends from the end of medium range out to 1.5 times medium range, and extreme range extends from the end of long range out to twice medium range.

Adding either a telescopic sight or a gyrostabilizer unit will increase the medium range of a weapon by 50%. Adding both will increase the medium range by 125%.

4.4.7 Pistols

4.4.7.1 PROJECTILE TYPE (STANDARD SLUGS)

Calibre	Damage	Range	Cost
.22	2D4	100m	150 smu (+0.02 smu/round)
.32	2D6	100m	200 smu (+0.22 smu/round)
.35 HiPower	3D8-1	100m	300 smu (+0.22 smu/round)
.38	3D6	100m	250 smu (+0.22 smu/round)
.357 magnum	4D6	100m	350 smu (+0.26 smu/round)
.45	3D8	100m	300 smu (+0.28 smu/round)
.44 magnum	4D8	160m	400 smu (+0.30 smu/round)

All the above listed weapons are assumed to be revolvers, with a six round ammunition capacity. Automatic versions of the above weapons exist for all calibres, but the costs of the automatic pistols are 10% higher than the corresponding revolver versions. The automatic versions have ammunition clips capable of holding up to twelve rounds. In addition, machine pistol versions exist for all calibres listed above at a unit cost twice those listed above. The machine pistol versions of the above weapons fire three round bursts at 3 Action point intervals. The ammunition drums for all machine pistols contain thirty-six rounds of ammunition. These pistols are all 10 point weapons.

4.4.7.1.1 Ammunition and Magazine Weights

For the sake of simplicity, the different types of pistol ammunition of a given calibre are all assumed to weigh the same. Further, it has been assumed that revolvers and automatics of a given calibre have the same mass when empty. The masses given for the machine pistol ammunition drums assume fully loaded drums.

Calibre	Mass of 1 round	Mass of loaded 10 round clip	Mass of 36 round drum
.22	3 grams	130 grams	328 grams
.32	5 grams	150 grams	400 grams
.35 HiPower	8 grams	180 grams	508 grams
.38	10 grams	200 grams	580 grams
.357 magnum	10 grams	200 grams	580 grams
.45	15 grams	250 grams	760 grams
.44 magnum	16 grams	260 grams	796 grams

An empty 10 round clip masses 100 grams, an empty 36 round pistol drum masses 220 grams.

4.4.7.2 PROJECTILE TYPE (SPECIAL SLUGS)

4.4.7.2.1 Needler

This pistol fires steel needles at extremely high velocity (over three kilometers per second). The armor penetration of these needles is poor, but the damage to the nervous system of the target from hydrostatic shock is considerable. Damage of 1D4+1 is rolled vs hit location and, if the armor is penetrated, 12D8 damage is done vs total END. RANGE = 80m, COST = 600 smu (+ 0.6 smu per round of ammo — a magazine holds 10 rounds). Each round of Needler ammunition (actually a packet of steel needles) masses 2 grams, and a 10 round magazine masses 120 grams loaded, 100 grams empty. This is a 10 hit point weapon.

4.4.7.2.2 Tangler

A tangler pistol fires a round that explodes on impact and produces an entangling web of fast hardening sticky plastic strands. 1D3 damage is done to the target, and the location struck (together with all adjacent locations) is entangled in and immobilized by STR 20 plastic strands. The tangleweb thus created will decay after five full turns. In order to free a location before the tangleweb decays, the STR of the web must be overcome (see Chapter 6, Psionics and the Use of Will for further explanation of overcoming resistance). Range = 80m, COST = 450 smu (+ 0.2 smu per round of ammunition — a magazine holds 10 rounds of ammunition). Each round masses 25 grams, and a loaded magazine masses 400 grams (an empty magazine masses 150 grams). This is a 10 hit point weapon.

4.4.7.2.3 Taser

This weapon fires three darts at once. Roll 1D4+1 to determine armor penetration capability (not damage) for each separate dart that hits the target (each dart is rolled as a separate attack as well). If at least two of the three darts hit and penetrate armor, then the target must roll at or under WIL x 2 on D100 or be immobilized (for so long as the darts are in place and the firer continues to operate the Taser unit). MAXIMUM RANGE = 5 meters (may not be extended — as the darts must be connected by wire with the launcher in order to function). COST = 500 smu. Two sets of darts are loaded in each unit — reloading requires recoiling the darts which takes twelve action points. There is, in addition, a 6 second built in delay between firings. This is a 10 hit point weapon.

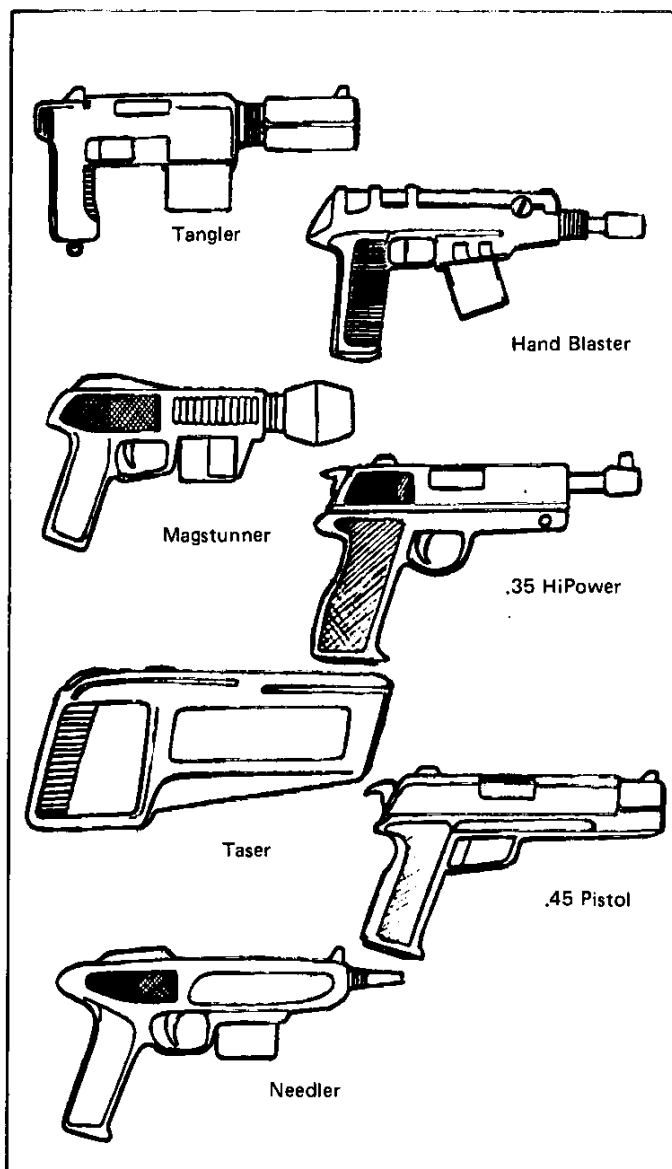
4.4.7.3 ENERGY PROJECTION TYPE

4.4.7.3.1 Handblaster

4D6 damage per charge. Wounds done with this weapon are automatically cauterized — no bleeding. RANGE = 180m, COST = 550 smu (+ 1 smu per charge — a magazine typically holding 12 charges). A charge masses 10 grams, and a loaded magazine masses 200 grams (an empty magazine masses 80 grams). This weapon is a 10 hit point weapon. This weapon will damage all types of armor!

4.4.7.3.2 Laser Pistols

Type	Damage	Range	Cost
LPC-1	1D4	160	60 (+ 4 smu/12 charge battery pack)
LPC-2	1D6	160	80 (+ 4 smu/12 charge battery pack)
LPC-3	1D8	160	120 (+ 4 smu/12 charge battery pack)
LPC-4	2D4	160	140 (+ 4 smu/12 charge battery pack)
LPC-5	2D4+1	160	160 (+ 4 smu/12 charge battery pack)
LPC-6	2D6	160	180 (+ 4 smu/12 charge battery pack)
LPP-1	2D4	160	80 (+ 4 smu/12 charge battery pack)
LPP-2	2D4+1	160	115 (+ 4 smu/12 charge battery pack)
LPP-3	2D6	160	160 (+ 4 smu/12 charge battery pack)
LPP-4	2D6+1	160	185 (+ 4 smu/12 charge battery pack)
LPP-5	2D8	160	220 (+ 4 smu/12 charge battery pack)
LPP-6	2D8+1	160	255 (+ 4 smu/12 charge battery pack)



Lasers are extremely efficient tools for cutting metal or slicing up inorganic materials but not for slicing flesh.

There are two varieties of laser: the continuous emission laser, and the pulse laser. Laser pistols are bulky and unwieldy weapons, and remain in common use more as a result of their value as a cheap cutting tool than as a result of any real value as weapons. Neither type of laser may fire through smoke, fog, water, or dust. Both types of lasers damage armor, with damages as listed above.

Damage against flesh is one half the damage listed above — the principal advantage to the continuous emission laser being that it is constantly firing, allowing 12 separate targets fired upon in one melee round. The continuous emission laser units listed above may be used with battery packs or mobile generators. Individual battery packs are good for 12 shots and mobile generators will supply power essentially indefinitely (i.e. depending solely on number of operating hours fuel available for the generator). A battery pack costs 4 smu and masses 1000 grams (1 kilogram). A mobile generator costs 250 smu (and mas-

ses 12 kilograms). One mobile generator and one battery pack type are useable interchangeably with all lasers. A mobile generator will recharge battery packs at a rate of one pack per 90 seconds at a cost of 1 smu in fuel.

Continuous emission lasers have a warm-up delay of twelve seconds from a 'cold' or non-fired condition and will 'cool down' to the point of requiring the warm up delay in firing 15 minutes after the last use. There is a 4 ACTION POINT delay going from a warm state (non-firing) to a firing state on continuous emission lasers.

Lasers may NOT be set on wide beam.

Laser pistols are 8 hit point weapons.

4.4.7.3.3 Magstunner

This weapon generates an extremely strong magnetic pulse which has effect on any life-form with a nervous system. A hit from a magstunner bolt does 6D6 damage vs total END. Divide this damage in half before taking armor affects into account if the target is wearing metallic armor. RANGE = 180m, COST = 1250 smu (+1.25 smu per charge — a magazine typically holding 12 charges). Each round for a magstunner masses 10 grams, a full magazine masses 220 grams, and an empty one masses 100 grams. This is a 10 hit point weapon.

4.4.7.3.4 Sonic Stunner

Damage determined as follows: 4D6 attack is made vs CON (see Chapter 6, Psionics and the Use of Will for the Resistance formula to be used in the resolution of this attack). If the attack is successful, the target is knocked out for (22-CON) turns. If the attack fails, the target takes END damage equal to the amount rolled on the CON attack. RANGE = 120m, COST = 1000 smu (+ 0.5 smu per round of ammunition — and a typical magazine holds 8 rounds). Each round of ammunition — masses 12.5 grams, and a full magazine masses 200 grams (an empty one masses 100 grams). A sonic stunner will not function in a vacuum, and will not affect any individual wearing type 3 (or better) armor. This is a 10 hit point weapon.

4.4.8 Rifles

4.4.8.1 PROJECTILE TYPE (NORMAL SLUG)

Calibre	Damage	Range	Cost
.22 light	1D8+1	240m	500 smu (+ 0.28 smu/rnd)
.23 Stoner Mk2	4D8	320m	950 smu (+ 0.43 smu/rnd)
.24 Gruder Mk4	6D6	460m	1500 smu (+ 0.48 smu/rnd)
.30 M5 sniper	5D8	1000m	2500 smu (+ 0.75 smu/rnd)
.308	3D8	200m	650 smu (+ 0.50 smu/rnd)

The above listed weapons have twenty round clips, and are semi-automatic weapons. Fully automatic versions of all of the above listed weapons (with the exception of the M5 sniper) exist — their costs are twice the listed values for the semi-automatic versions. The fully automatic versions fire three round bursts at 3 Action Point intervals. All these rifles are 12 hit point weapons.

4.4.8.1.1 Ammunition and Magazine Weights

For the sake of simplicity, the different types of rifle ammunition of a given calibre are all assumed to weigh the same.

Calibre	Mass of 1 round	Mass of loaded 20 round clip
.22 light	4 grams	240 grams
.23 Stoner Mk2	11 grams	380 grams
.24 Gruder Mk4	12 grams	400 grams
.30 M5 sniper	13 grams	420 grams
.308	12 grams	400 grams

An empty magazine masses 160 grams for all the above listed calibres.

4.4.8.2 PROJECTILE TYPE (SHOTGUNS)

All shotguns in OTHER SUNS are semi-automatic with eight round capacity. The medium range for shotguns is FIXED at 40 meters — telescopic sights and gyrostabilizers do not increase the medium range of shotguns. Shotguns are 12 hit point weapons.

Roll for hit locations struck as per WIDE BEAM with energy weapons. Then roll 1D6+3 and after deducting armor for each of the indicated hit locations double the damage done. For example, suppose the hit location numbers struck are 5 through 11, these locations are protected by 7 points of armor and a 9 is rolled on the 1D6+3; then the hit locations designated by hit numbers 5-11 would each take $2 \times (9-7) = 4$ points damage.

Shotguns cost 550 smu, and ammunition costs 1.25 per round. Each round of ammunition masses 50 grams, and the magazine is an integral part of the weapon. The time required for reloading is as per revolvers (2 Action Points plus 2 Action Points per round of ammunition loaded).

4.4.8.3 RECOILLESS TYPE/ENERGY TYPE

Type	Damage	Range	Cost
1	4D8	460m	1000 smu (+ 1.00 smu/round)
2	6D6	600m	1350 smu (+ 1.35 smu/round)
3	8D6	600m	2400 smu (+ 2.40 smu/round)
4	10D6	600m	3750 smu (+ 3.75 smu/round)
5	8D8	600m	8000 smu (+ 4.25 smu/round)

In order to fire a blaster rifle of type N safely (for N greater than 1), it is necessary to be wearing armor of at least type N+2. If the firer is not wearing the proper type of armor, he will take damage equal to one-third the amount rolled (round fractions up) to the head, chest, and both arms (or hit locations 1 through 8 inclusive for non-humanoids). This damage is assumed to be back-blast from the shot fired that is not stopped by the firer's armor. In addition to the damage to the firer, an equal amount of damage is done to the armor in each of the indicated locations.

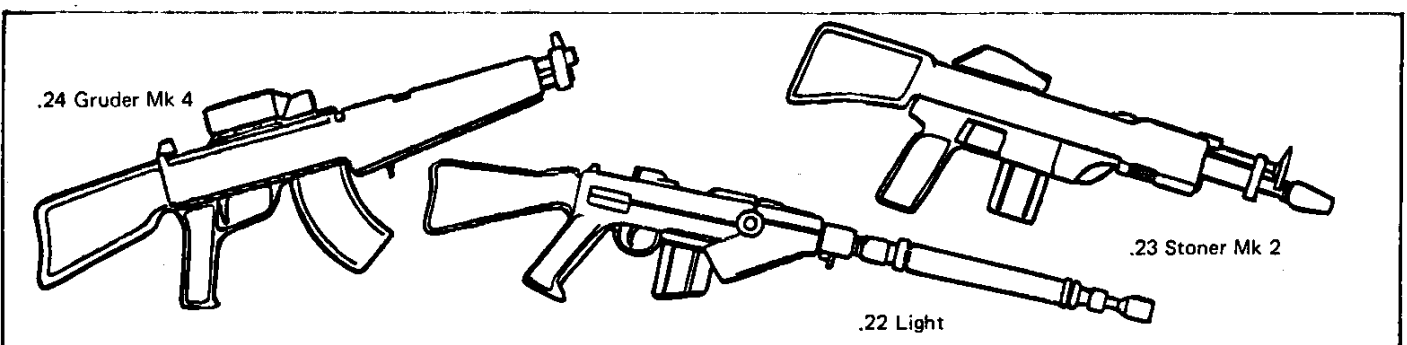
Tripod mount heavy blasters (type 5) do not have a back-blast, and may be fired safely by unarmored personnel. Typical charge packs for tripod mount units carry 100 charges.

Each charge for a blaster rifle of any type masses 10 grams, and the magazines for types 1 through 4 mass 160 grams empty, 400 grams with full ammunition load. The magazines for type 5 blasters mass 1 kilogram empty, 2 kilograms with full ammunition load. Blaster rifles all carry 24 charge capacity when fully charged. Blaster rifles will damage all types of armor. Blaster rifles are 12 hit point weapons.

4.4.8.3.1 Laser Rifles

Type	Damage	Range	Cost
LRC-1	2D4	380	580 (+ 4 smu/12 charge battery pack)
LRC-2	2D4+1	380	650 (+ 4 smu/12 charge battery pack)
LRC-3	2D6	380	720 (+ 4 smu/12 charge battery pack)
LRC-4	2D8	380	800 (+ 4 smu/12 charge battery pack)
LRP-1	2D6+1	380	870 (+ 4 smu/12 charge battery pack)
LRP-2	2D8	380	980 (+ 4 smu/12 charge battery pack)
LRP-3	2D8+1	380	1080 (+ 4 smu/12 charge battery pack)
LRP-4	3D6	380	1200 (+ 4 smu/12 charge battery pack)
LTC-1	2D6	600	2100 (+ 4 smu/12 charge battery pack)
LTC-2	3D4	600	2400 (+ 4 smu/12 charge battery pack)
LTC-3	2D6+1	600	2700 (+ 4 smu/12 charge battery pack)
LTP-1	2D8+1	600	3150 (+ 4 smu/12 charge battery pack)
LTP-2	3D6	600	3600 (+ 4 smu/12 charge battery pack)
LTP-3	2D8+2	600	4050 (+ 4 smu/12 charge battery pack)

Damage against flesh is ONE HALF the damage listed above as lasers are not the most effective weapons to use against what are, for all intents and purposes, giant water balloons. There is only one mobile generator and one battery pack type useable interchangeably with all the above listed lasers — the same varieties as used for laser pistols.



Laser rifles are 10 hit point weapons. Laser tripod mounts are 12 hit point weapons.

4.4.8.4 PROJECTILE TYPE (RIFLE GRENADE)

Rifle grenade launchers attach to any projectile type rifle. Their RANGE = 200 meters. COST (of launcher) = 1235 smu. COST (of grenades) = 200 smu each. Each rifle grenade masses 2 kilograms. Rifle grenades do 15+2D4 damage to total hit points to all within a 10 meter radius of the impact point (halve the damage for each additional meter distance). Grenades do double damage in a confined space (i.e. any room less than 20 meters across). Type 3 and above armor protects against damage from grenades — but the armor takes 1/2 damage in all locations, reducing its protection against later attacks accordingly. The launcher mechanism is a 6 hit point weapon.

If a rifle grenade shot misses its desired target location, roll 1D8 to determine direction of scatter (1=fell far and to the left, 2=fell far, 3=fell far and to the right, 4=fell to the left, 5=fell to the right, 6=fell short and to the left, 7=fell short, 8=fell short and to the right) and roll 4D10 for distance (in meters) that the grenade scattered.

Rifle grenades may be used for either direct or indirect fire.

4.4.9 Hand Grenades

In order to place a grenade within one meter of a desired target point, a thrown object roll must be made. A critical on this roll means that the grenade struck exactly the spot desired. A fumbled roll means that the grenade was dropped at the thrower's feet. In the case of a missed thrown object roll, the grenade is assumed to have been thrown well off target. Roll as per Rifle grenade for direction of scatter, then roll 2D10 for the number of meters by which the grenade missed its target.

As the grenade need not strike its target with any great force in order to accomplish its desired function, the ranges allowed will typically exceed those for thrown object. The ranges given for each grenade type are to be compared with the range for thrown object (twenty-four meters). The range of throw depends upon the strength of the individual (up to a point). For each individual, the actual range allowed for the throw is either 24 meters (the thrown object range) or the range value given for that grenade, whichever is greater.

Once the pin is pulled on a grenade, there is a slight time delay before the grenade detonates.

All of the grenades listed mass 0.8 kilogram each.

There are seven different types of grenades: (1) concussion, (2) fragmentation, (3) smoke, (4) thermite, (5) phosphorus, (6) irritant-gas, and (7) incapacitant-gas.

4.4.9.1 CONCUSSION GRENADE

Fuse time = 5 Action Points, Throwing Range = STR x 4, Burst radius = 3 meters, Effect = 2D8 damage to CON, and Twice this amount in END damage (double all damage in confined spaces). Unlike the rifle grenade version of this weapon, this grenade will not damage armor.

4.4.9.2 FRAGMENTATION GRENADE

Fuse time = 4 Action Points, Throwing Range = STR x 4, Burst radius = 5 meters, Effect = all targets within the burst radius are struck by 1D20 fragments (roll for each target) and each fragment does 2D6-1 damage (roll individually for location hit by each fragment, but roll only once for the damage done by fragments striking a single target).

4.4.9.3 SMOKE GRENADE

Fuse time = 2 Action Points, Throwing Range = STR x 3, Burst radius = 15 meters, Effect = the smoke grenade burns for 10 melee rounds, generating a dense white cloud of smoke 15 meters in radius. The cloud blocks normal vision completely. Anyone firing through the cloud suffers the usual penalties of firing while blinded. While the smoke grenade is burning it is extremely hot, and anyone placed in direct physical contact with the grenade will take 1D3+1 damage per second that they remain in contact with the grenade (the damage being done to the location in contact with the grenade only, and all forms of armor will protect against this damage); this damage will not damage modern armor of types 3 and above, though it will damage all forms of ancient armor and all modern forms of types 1 and 2.

4.4.9.4 THERMITE GRENADE

Fuse time = 2 Action Points, Throwing Range = STR x 2, Burst radius = 1/2 meter, Effect = all equipment, armor, etc., within the area of effect will take damage at a rate of 2D4 points per Action Point due to the intense heat generated by the burning thermite; the thermite will continue to burn for five (5) melee rounds once ignored. Modern armor

of types 3 and above will protect against this damage, as will a Full EVA suit (a space suit) though these armors will take damage from the burning thermite. Life forms subjected to the thermite fireball will take the 2D4 damage to total hit points per action point of exposure.

4.4.9.5 PHOSPHORUS GRENADE

Fuse time = 4 Action Points, Throwing Range = STR x 3, Burst radius = 3 meters, Effect = all targets within the burst radius are struck by 1D20 fragments of burning phosphorus (roll for each target to determine the number of fragments which struck, and roll for each fragment to determine where on the body the fragment struck). Each fragment does 1D3+1 burn damage to the location each second that it is in contact with that location until the fragment burns out. Each fragment will burn for 5 melee rounds. All armor types will protect against his damage, but the burning fragment damages armor, and if it burns through to either flesh or leather in the first second of contact, it will adhere to the location struck (otherwise, it will fall to the ground).

4.4.9.6 IRRITANT GAS GRENADE

Fuse time = 2 Action Points, Throwing Range = STR x 4, Burst radius = 15 meters, Effect = as per smoke grenade, save that all individuals breathing the smoke produced take 2D6 END damage each melee round that they continue to breath the gas; END damage due to an irritant gas grenade that would result in reducing an Adventurer's END to zero or below is ignored.

4.4.9.7 INCAPACITANT GAS GRENADE

Fuse time = 2 Action Points, Throwing Range = STR x 4, Burst radius = 15 meters, Effect, as per smoke grenade, save that all individuals breathing the smoke produced take 4D6 END damage each melee round that they continue to breath the gas (this END damage WILL reduce the current END to zero, and thus it will cause unconsciousness, but it will not reduce the END below zero).

All the above types of hand grenades cost 200 smu each. All the above types of grenades exist in rifle grenade form with identical effects (save for the concussion grenade, which already is described under the heading Rifle Grenade).

4.4.10 Mortars

The minimum range for a mortar is 50 meters (all fire being indirect), and the medium range limit is 1600 meters. Damage is 40+2D10 out to 15 meters, damage being cut in half for each additional 2 meters of range to ground zero. Armor type 3 and better will protect against damage, but will take half damage itself in the process (as against grenades). If the shot misses, determine scatter as per grenades, save that the distance scattered is 1D4 x (distance from mortar to desired target)/25, in meters, rounding fractions up. This weapon is a thirty hit point weapon.

Cost of mortar = 24000 smu. Cost of one mortar shell = 750 smu. Each mortar shell masses 4.0 kilograms, and the mortar itself masses 40 kilograms.

4.4.11 Rocket Launcher, Shoulder Fired

The range for this unit is 1000 meters. Damage is 20+2D10 to all within 1 meter of impact point. Armor types 3 and better will protect against damage from this weapon, but full damage is done to the armor. This weapon may be used for direct fire only. This weapon is a fifteen point weapon.

Cost of unit = 6500 smu. Cost of one rocket = 230 smu. The rocket launcher mechanism masses 12.5 kilograms, and each rocket masses 2.5 kilograms.

4.4.12 Submachine Guns

Type	Damage	Range	Cost
Ingram M19	3D8+1	100m	1500 smu (+0.52 smu/round)
Uzi Mark 7	3D8-1	200m	2250 smu (+0.50 smu/round)

These two weapons are later versions of the first century (atomic era) terrestrial weapons, the Ingram M10 and the Uzi respectively. Both weapons have switch selectable rates of fire — the Ingram to 4 Action Point or 2 Action Point delays between bursts, the Uzi to 3 Action Point or 2 Action Point delays between bursts. Both weapons fire three round bursts.

The attack roll is made once for the burst, then damage (and penetration) determination is done separately for each round in the burst. In a three round burst it would be possible to do 12, 15, and 9 points damage and, if the hit location struck had 10 points of armor, the damage done to the target would be 2+5+0 = 7 points.



The magazine for either weapon will hold 36 rounds of ammunition (a slight improvement over their terrestrial predecessors). Empty magazines for the Ingram and the Uzi cost 150 smu and 225 smu respectively. The ammunition used by both weapons masses 17 grams per round, and a full magazine masses 0.9 kilograms (an empty magazine masses 0.288 kilograms, or 288 grams).

4.4.13 Accessories

A **telescopic sight** costs 220 smu. Together with mountings it will mass 300 grams (0.3 kilograms) and it will provide variable magnification of between 2x and 20x.

A **gyrostabilizer unit** costs 480 smu, and masses 1.5 kilograms.

A **unipod or bipod mount** for bracing a handgun or a rifle (respectively) costs 12 smu. Such mounts will mass 0.2 kilograms or 0.4 kilograms respectively.

4.4.14 STR Requirements

Due to size, recoil, and/or clumsiness certain weapons have minimum STR requirements for use. Where STR requirements are not met,

reduce the chance of successful attack by 6% per point of STR below the required level.

Weapon	1-Handed	2-Handed
.32 Pistol	7	—
.35 HiPower	11	9
.38 Pistol	9	7
.357 Magnum Pistol	12	9
.45 Pistol	11	9
.44 Magnum Pistol	13	10
Needler	11	9
LPC-2	7	5
LPC-3	9	7
LPC-4	11	9
LPC-5	13	11
LPC-6	13	11
LPP-2	9	7
LPP-3	11	9
LPP-4	13	11
LPP-5	13	11
LPP-6	13	11
Ingram M19	13	11
Uzi Mark 7	13	11

4.5 ARMOR

4.5.1 The Function Of Armor

Armor provides protection against environmental hazards, both natural and man-made. Different hit locations may be protected by different types of body armor (both ancient and modern) but if a modern armored suit is worn, the entire body is encased in the same type of armor.

Subtract the armor protection in a location from any damage done by an attack to that location. The result is the amount of damage done to that hit location (a zero or negative result means that no damage is done to the protected location).

4.5.2 Ancient Armor

4.5.2.1 BODY ARMOR

Ancient body armors (other than simple clothes or heavy leathers) are found primarily on primitives on newly discovered worlds. But there are latter day equivalents of the SCA (the Society for Creative Anachronism) whose members take a positive delight in surprising their contemporaries with their ability to manufacture ancient forms of body armor. Characteristics of these ancient armors are as follows:

4.5.2.1.1 Ancient Body Armor Statistics

Name	Armor Type	Mass/Hit number covered	Energy Protection	Impact Protection	Cost
Clothes*	1	0.2%	1	1	1.0 smu/kilogram mass
Leather*	1	0.4%	2	2	2.0 smu/kilogram mass
Heavy Leather**	1	0.6%	3	3	3.0 smu/kilogram mass
Cuirboilli	1	0.8%	4	4	4.0 smu/kilogram mass
Ring mail	1	1.0%	5	5	5.0 smu/kilogram mass
Chain mail	1	1.2%	6	6	10.0 smu/kilogram mass
Scale mail	1	1.4%	7	7	12.5 smu/kilogram mass
Plate	1	1.6%	8	8	15.0 smu/kilogram mass

* = may be worn over or under ancient or modern armor except Webbing.

** = may be worn under ancient body armor.

Explanations of Headings

NAME: The common name of the armor.

ARMOR TYPE: A grade indicating resistance to the effects of certain mass damage weapons. Ancient forms of body armor are not noted for their ability to protect their wearers from the side effects of large explosions.

MASS/HIT NUMBER COVERED: This gives the mass of the armor, as a percentage of body weight, based on the number of hit numbers (20 for full body) that are covered by the indicated armor. For example, the clothing for a normal human (which covers all hit numbers save 1 and 2) would mass $0.2\% \times 18 = 3.6\%$ of his body weight. If he weighed 80 kilograms this would amount to 2.88 kilograms, or approximately six pounds five ounces. A suit of plate for the same person would mass 32% of his body weight, or 25.6 kilograms (roughly fifty-six pounds five ounces).

ENERGY PROTECTION: This is the number of points of damage that the armor will absorb in the form of energy damage (blaster fire, laser fire, explosion damage, and the like).

IMPACT PROTECTION: This is the number of points of damage that the armor will absorb in the form of impact damage (from bullets, shrapnel, arrows, sword blows, and the like).

COST: This is the typical cost in SMU of the given armor per kilogram of armor employed in protection. For a typical human male a clothes will cost 2.88 smu, and a 'typical' suit of plate armor sized to fit would cost 384 smu.

NOTE: Ring, Chain, Scale, and Plate armor are metallic armors for the purposes of protection versus magstunner fire.

4.5.2.2 SHIELDS

When the user of a shield succeeds in his parry, he will interpose the shield between himself and one specified incoming attack.

4.5.2.2.1 Shield Statistics

Name	Protection	01-25	26-50	51-75	76-100	101+	RATE	Price	Mass
Buckler	6	50	125	200	275	400	3 AP	15	4.5 kg
Heater	12	25	100	175	250	400	4 AP	20	5.5 kg
Kite	18	75	150	225	300	400	5 AP	25	6.3 kg
Tower	24	100	175	250	325	400	6 AP	30	10.0 kg

Explanations of Headings

NAME: These are common names for the shields available.

PROTECTION: The shield will absorb this number of points of impact or energy damage per attack before the user (or his body armor) is subjected to damage. Normally a shield will not be damaged by impact damage. However if a single blow does twice or more the number of points damage that the shield will absorb, the shield will shatter.

01-25/26-50/51-75/76-100/101+: Serves the same function as it does in the weapons charts.

RATE: The delay in action points required between any two successive parries with the shield.

PRICE: The standard price for a shield in SMU.

MASS: This is the mass for the given type of shield.

4.5.3 Modern Armor

4.5.3.1 MODERN BODY ARMOR

4.5.3.1.1 Modern Body Armor Statistics

Name	Armor Type	Mass/Hit no. covered	Energy Protection	Impact Protection	Cost/Hit no. covered
L-mirror	1	0.2%	15 (laser only)	1	1.0 smu
Reflect	1	0.2%	12	2	1.5 smu
Webbing	1	0.3%	4	6	17.5 smu
Solan	1	0.4%	6	4	1.5 smu
Torlan	1	0.4%	3	8	1.5 smu
Screen	1	0.4%	8	3	1.5 smu
Morlan	1	0.4%	5	5	1.5 smu
Styrane	2	0.5%	7	7	3.5 smu
Kevlan	2	0.6%	4	15	4.0 smu
Solex	2	0.6%	15	4	4.0 smu
Flak	2	0.7%	8	8	4.5 smu
Korvan	2	0.8%	10	7	5.0 smu
Tolex	2	0.9%	7	10	5.0 smu
Protek	3	1.2%	12	12	10.5 smu
Laminat	3	1.5%	14	14	14.0 smu
Shock	3	1.8%	16	16	17.5 smu

Explanation of Headings

ARMOR TYPE: This number indicates an overall effectiveness rating against certain forms of explosion and radiation damage (used in dealing with the effects of grenades and the back-blasts from certain weapons).

MASS/HIT NUMBER COVERED: This is the mass of the armor as a percentage of total body weight per hit number covered.

ENERGY PROTECTION: This is the number of points of damage that the armor will in the form of energy damage (blaster fire, laser fire, explosion damage, and the like).

IMPACT PROTECTION: This is the number of points of damage that the armor will absorb in the form of impact damage (from bullets, shrapnel, arrows, sword blows, and the like).

COST/HIT NUMBER COVERED: This is the cost in smu for the given type of armor on a basis of the hit numbers covered by that armor. This is a FIXED price independent of the size of the wearer.

NOTE: There are a number of forms of energy attack that destroy armor. The points damage done to the armor in a given location by one of these armor destructive attacks will reduce the impact protection of that armor proportionally. For example, if a location protected by a piece of Solan (Energy Protection 6, Impact Protection 4) was hit by laser fire that did 3 points of damage to the armor, the protective capabilities of that piece of armor would be reduced to 3 points of Energy Protection and $(3/6) \times 4 = 2$ points of Impact Protection. Fraction points of protection are rounded up (in favor of the person wearing the armor).

Only one form of modern body armor may be worn per location, with one exception: L-mirror, a highly reflective foil backed plastic which may be worn over any other modern body armor (or modern armored suit). L-mirror provides only 1 point of protection against non-laser energy attacks.

Reflect is a metallic armor somewhat sturdier than L-mirror.

Webbing is a synthetic fiber woven into a leotard. In addition to providing against energy and impact weapons, it also allows the user to survive in a vacuum (provided that he is supplied with breathable air). Webbing must be custom fitted to the user and may only be worn by non-furred creatures.



Solan, Torlan, Screen, Morlan, Styrane, and Solex are all plastic (therefore non-metallic) armors with varying thermo-dynamic and impact characteristics. Clothing can be easily made from any of these materials, though it will be somewhat stiff and uncomfortable (but it would **NOT** be recognizable as body armor).

Kevlar, Flak, Korvan, and Tolex are somewhat more difficult to disguise heavier plastic and metallic fiber mixtures. A successful SPOT HIDDEN or use of the psionic talent AWARENESS (see Chapter 5, Specialties and Skills, or Chapter 6, Psionics and the Use of Will, respectively) will detect the use of any of these materials in clothing. These armors are treated as metallic for determination of protection from magstunner fire.

Protek, Laminat, and Shock are all heavy ceramic plate armors. An individual wearing one of these types of body armor will look as if he were wearing a small, tightly fitting spacesuit (though any but the briefest glimpses would clearly show this not to be the case).

All of the above forms of modern body armor may be worn underneath any of the modern armored suits.

4.5.3.2 MODERN ARMORED SUITS

Armor Type	Description	Protection	Mass	Cost
0	Bare skin	0	0	
1	Light Environmental Suit	10	0.15 x Body Weight	800
2	Full EVA suit (space suit)	15	0.25 x Body Weight	2,400
3	Light Combat armor	20	0.30 x Body Weight	4,000
4	Scout Suit	25	5.00 x Body Weight	25,000
5	Command Suit	35	8.00 x Body Weight	30,000
6	Marauder I Suit	60	12.00 x Body Weight	200,000
7	Marauder II Suit	90	18.00 x Body Weight	400,000

4.5.3.2.1 Explanation of Headings

ARMOR TYPE: As per the modern body armors.

PROTECTION: This is the number of points of damage (both impact and energy) that the given form of suit will absorb in each location before damage is passed through to the wearer.

MASS: This is the mass of the unit as a function of body weight of the user to whom the suit is fitted (all suits will be sufficiently close tolerance units that only a specific build and length individual of a particular species may wear a given suit).

COST: This is the cost of the given armor. Suits of type 4 through 7 (the powered armors) may not be legally purchased or possessed by civilians. Suits of these types may be acquired by civilians only through salvage operation or through the black market. Roll 1D4+1 to determine the cost multiplier for these goods on the black market.

Type 1 suits will protect the wearer against pressures and temperatures between 0 to 5 atmospheres and 200 to 400 degrees Kelvin (-100 to +260 degrees Fahrenheit). Modern Armored Suits of types 2 and higher are space suits and will protect the wearer against pressures and temperatures between zero to 100 atmospheres and 0.1 degrees Kelvin (near absolute zero) to 750 degrees Kelvin (over 980 degrees Fahrenheit) respectively. Battery and power limitations restrict the suits' operational time to 120 hours.

Armor points protection are for each individual hit location. An individual wearing a full body suit (any of the above listed types) will be wearing that suit only. Thus, one could not wear Marauder I arms, legs and head, and Marauder II chest and abdomen. These suits are all integrated units, covering the complete body of the user.

In order to use the higher classes of armored suits (type 2 and above) it is necessary to train in their use.

The skill Vac-Suit Operation covers the operation of suits of armor type 2 and 3 (and, in addition, the handling of zero-g maneuvering in a suit). This skill is a prerequisite to learning the skills of handling any of the higher armor type suits. It must be learned to the 50% skill level before training can be begun in any of the higher armor suit operations skills. It is a 24% base manipulation skill. The costs for training are as follows:

	01-25	26-50	51-75	76-100	101+
Vac-Suit Operation	50	100	150	250	400

The skill Scout Suit Operation covers the operation of suits of armor type 4. The skill Command Suit Operation covers the operation of suits of armor type 5. One or both of these skills must be at the 50% skill level or better before training may begin in either of the marauder suit use skills. These skills are 0% base manipulation skills.

In addition to providing protection, scout and command suits add to movement and sensory capabilities of the users. The modifications to user capabilities are as follows:

Scout Armor:

(1) The maximum flight speed of a scout suit is 88 meters per second (roughly 188 miles per hour).

(2) The suit carries fuel for 120 minutes of flight; fuel cost is 1 smu/minute of flight time.

(3) Sensor with range 10 kilometers, Grade 5, ECM grade 9 (See Sensors and Electronic Countermeasures in Chapter 10, Starships And FTL Travel).

(4) This powered suit increases the STR and the encumbrance limit of the user by a factor of 7.5 (thus allowing the user to wear the suit and carry a load of up to 2.5 times his own body mass outside the suit without penalty).

Command Armor:

(1) The maximum flight speed of a command suit is 72 meters per second (roughly 155 miles per hour).

(2) The suit carries fuel for 120 minutes of flight; fuel cost is 1 smu/minute of flight time.

(3) Sensor with range 10 kilometers, Grade 7, ECM grade 7 (See Sensors and Electronic Countermeasures in Chapter 10, Starships And FTL Travel).

(4) This powered suit increases the STR and the encumbrance limit of the user by a factor of 12 (thus allowing the user to wear the suit and carry a load of up to 4 times his own body mass outside the suit without penalty).

The costs of training for these skills are as follows:

	01-25	26-50	51-75	76-100	101+
Scout Armor Operation	50	100	250	400	550
Command Armor Operation	50	100	250	400	550

The skill Marauder I Operation covers the operation of suits of armor type 6. The skill Marauder II Operation covers the operation of suits of armor type 7. Before one can train in Marauder I Operation, the skill of either Scout Armor Operation or Command Armor Operation must be at least 50%. Before one can train in Marauder II Operation, the skill of Marauder I must be mastered. These two skills are both 0% base manipulation skills.

Marauder suit capabilities are as follows:

Marauder Type I:

(1) The maximum flight speed of a marauder I suit is 60 meters per second (roughly 130 miles per hour).

(2) The suit carries fuel for 90 minutes of flight; fuel cost is 1 smu/minute of flight time.

(3) Sensor with range 10 kilometers, Grade 5, ECM grade 5 (See Sensors and Electronic Countermeasures in Chapter 10, Starships And FTL Travel).

(4) This powered suit increases the STR and the encumbrance limit of the user by a factor of 18 (thus allowing the user to wear the suit and carry a load of up to 6 times his own body mass outside the suit without penalty).

(5) Suit armament - 2 type 3 blaster rifles (mounted in the arms of the suit - treat as gyrosteadied and set with telescopic sight) with 36 charge ammo packs, and a Y-rak (use either mortar skill or shoulder fired rocket launcher skill depending upon whether firing mode is direct or indirect) with 30 missiles (effect of missiles as per mortar shells).

Marauder Type II:

(1) The maximum flight speed of a scout suit is 54 meters per second (roughly 117 miles per hour).

(2) The suit carries fuel for 90 minutes of flight; fuel cost is 1 smu/minute of flight time.

(3) Sensor with range 10 kilometers, Grade 5, ECM grade 5 (See Sensors and Electronic Countermeasures in Chapter 10, Starships and FTL Travel).

(4) This powered suit increases the STR and the encumbrance limit of the user by a factor of 27 (thus allowing the user to wear the suit and carry a load of up to 9 times his own body mass outside the suit without penalty).

(5) Suit armament - 2 type 3 blaster rifles (mounted in the arms of the suit - treat as gyrosteadied and set with telescopic sight) with 36 charge ammo packs, and a Y-rack (use either mortar skill or shoulder fired rocket launcher skill depending upon whether firing mode is direct or indirect) with 60 missiles (effect of missiles as per mortar shells). In addition, there are two helmet mounted type 4 blaster rifle units with

36 charge ammo packs.

The costs of training these skills are as follows:

	01-25	26-50	51-75	76-100	101+
Marauder I Operation	50	100	350	600	850
Marauder II Operation	75	150	400	650	900

Missiles for Y-racks for suit types 6 and 7 cost 2500 smu each, and have 5 kilometer medium range. The reload time for the missile launchers is 6 Action Points per missile loaded. Thus, to reload both tubes requires a full melee round (12 Action Points).

4.5.3.2 Basic Suit Sensors

Suits of type 2 and carry sufficient telescopic, infra-red image intensifier, and other sensory gear as to be able to see under virtually any atmospheric conditions. Suit radars and sonars will allow terrain and object location under conditions of complete darkness. The armored suits of type 3 and above also have sufficiently good camouflage gear as to be effectively invisible to the naked eye under all lighting conditions and they are completely silent (except when flying); a successful application of either the Spot Hidden or Awareness skills will be required to detect these suits in operation. Basic suit sensors for non-military suits are all grade 0 (see Sensors and Electronic Countermeasures in Chapter 10, Starships and FTL Travel, for more details on sensor detection capabilities).

5. Specialties and Skills

5.1 INTRODUCTION

Just as an Adventurer can learn combat skills, he can also learn other skills either through training or experience. Some of these skills may be of great use, some of limited use, and some may only rarely be of use, depending on the nature of the local campaign.

Every Adventurer is assumed to begin play as an adult with at least some measure of training. As such, he has specialized in some broad area of knowledge. And as a result, the Adventurer has certain skills at values different from the indicated base values.

Unlike the fighting skills, most of the skills listed in this chapter have a basic chance of 0%. They are impossible without at least a little training.

5.1.1 Categories

Skills are divided into seven broad categories: Dodge, Knowledge, Manipulation, Observation, Persuasion, Stealth, and finally Special, the catch-all category for those skills that do not fall easily into one of the other categories.

Bonuses from natural ability are not added to skills with a basic chance of 0%. Special skills have no natural abilities bonuses, and thus may only be increased through training or experience.

5.1.2 The Joys Of Victory, The Agonies Of Defeat

The results of success in employing skills other than the direct combat skills are not as obvious, but they should be made nonetheless quite real and valuable to the players. For each of the skill categories, a successful skill roll produces slightly different results. Again, we define certain levels of success or failure in terms of the roll made relative to the roll required for success.

In the event of simple success (roll at or below the required value) the Adventurer remembers pertinent facts, solves the simple problem and/or satisfactorily performs whatever task requires the use of his skill; his observational skills detect the hidden object, spot the successfully sneaking intruder, see the clue; he persuades his comrades to agree with him; he succeeds sneaking past the guard.

5.1.2.1 CLEAN ACTION

A clean action results when a non-combat skill roll is made and the roll is 1/10th or less the roll required for a successful use of the skill (round all fractions up).

In the event of a clean action, the Adventurer has succeeded in carrying out his task with a certain measure of style. He remembers information related to the problem at hand; he carries out a difficult maneuver with a vehicle with apparent ease; he persuades the mildly hostile crowd to follow him; he spots the cleanly sneaking intruder, he notices the cleanly hidden object; he sneaks past the guard, unnoticed, unless the guard also cleanly spots him.

5.1.2.2 CRITICAL HIT

As per combat skills, a critical hit results when the roll made is 1/25th or less the roll required for a successful use of the skill (round all fractions up).

In the event of a critical hit, the Adventurer has carried out the task at hand in a truly expert fashion. He will solve the most difficult problems, dredging up all necessary facts from the depths of his memory, deriving necessary intermediate results on the spot; he turns the hostile lynch mob out after his blood into the strongest of his supporters; he

runs, jumps, or drives as if he had assumed godlike infallibility; he will see and observe everything, missing no item of importance or possible importance to him; he will sneak unseen past all save the critically observant guard.

5.1.2.3 FAILURE

A normal failure is simply that — a failure. Any roll above the required roll is a failed roll. And regardless of the skill level of the Adventurer, a 00 roll on 1D100 always indicates a failure.

In the event of a failure, the knowledge to solve the problem is not immediately provided; the adventurer fails to convince the passers-by to stop and listen to him on his soapbox; he fails the jump, or fails to make the required vehicular maneuver, but does not hurt himself or others as a consequence; he does not spot the hidden clue, the secret door, the tripwire waiting his unwary tread; and he does not evade the eyes of the sentry as he attempts to sneak by, even if the sentry is half asleep.

5.1.2.4 FUMBLE

A fumble is a failure that results in dire consequences of one form or another for the adventurer. The probability of a fumble is 1/25th the failure chance with the given skill (round fractions up).

In the event of a fumble, false or misleading information is provided to the adventurer; he crashes the aircar; he turns the friendly crowd into a mob bent on his destruction; he spots a moving shadow that he is sure is an intruder, and misses the intruder who is attempting unsuccessfully (but not with a fumbling approach) to sneak up behind him; he wakes the sleeping guard who would otherwise have gone on dreaming.

5.1.3 Learning Skills

The noncombat skills can be improved either through training or experience.

5.1.3.1 THROUGH TRAINING

In order to succeed in a training attempt, a player must roll at or under the larger of 100 — (current skill of character) + INT and INT on 1D100. If successful, the skill level increases by 1D6%. The time required for the training is 1 week per 200 smu cost.

5.1.3.2 THROUGH EXPERIENCE

In order to learn from experience, a player must roll at or under the larger of 100 — (current skill of character) + (number of successful uses of the skill during the expedition) + INT and INT. Each critical roll in the use of a skill counts as Ten (10) successful uses of the skill, and each clean action counts as Five (5) successful uses of the skill. If successful, the skill level increases by 1D6%.

5.2 SPECIALTIES AND SUBSPECIALTIES

Each character is assumed to have spent time in a University, Military Academy, or other training institute (if only perhaps the school of hard knocks) and, in consequence, acquired some familiarity with one particular field of knowledge. A player chooses any specialty he wishes for a character, and then having chosen a broad specialty, he then chooses that subfield of the broad specialty in which the character has invested the most effort (this subfield is referred to as his primary subfield). All line officers are assumed to be recently commissioned Ensigns (or equivalent — rank number 90) unless the previous experience option is used (in which case an Adventurer may only specialize in

those areas requiring a commission if his past experience indicates that he has a line officer commission).

Within this section, each general field is given followed by a listing of the subspecialties within that general field.

The starting skill level for a specialist is 35% + INT + Knowledge Bonus in his Primary Subfield within his general field. In his Secondary Subfields (all the other subspecialties within the specialist's general field) his base starting skill level is half his starting skill level in his primary subfield (except that if his base plus bonus for the secondary subfield is greater than this value, his skill level will be at the base value plus bonus).

5.2.1 Biology

- (1) Biochemist
- (2) Biologist (generalist)
- (3) Biophysicist
- (4) Botanist
- (5) Ecologist
- (6) Geneticist
- (7) Immunologist
- (8) Molecular Biologist
- (9) Paleontologist
- (10) Pharmacologist
- (11) Toxicologist
- (12) Xenobiologist

5.2.2 Business

- (1) Administrator
- (2) Bargaining Specialist
- (3) Bribery Specialist
- (4) Business Arrangements Lawyer
Legal Semanticist
Space Lawyer
- (5) Diplomat
- (6) Economist
- (7) Orator

5.2.3 Colonization

There are two distinct subspecialties within the colonization specialization, First-In and Permanent, and their skill patterns differ fairly dramatically. Only one of these two subspecialties may be chosen for the character.

5.2.3.1 FIRST-IN COLONIST

The following skills are begun at a skill level of 35% + INT + Knowledge bonus:

- (1) First Aid (own species)
- (2) Hide in Cover
- (3) Rifle (1 only)
- (4) Sense Ambush
- (5) Set Ambush
- (6) Spot Hidden
- (7) Tracking
- (8) Trap Set/Disarm
- (9) Vehicular Operations

The following skills are included as secondary subfields:

- (1) Armorer
- (2) Climbing
- (3) Skiing
- (4) Swimming

5.2.3.2 PERMANENT COLONIST

- (1) Armorer
- (2) Bargaining
- (3) Botanist
- (4) Biologist (generalist)
- (5) Civil Engineer
- (6) Computer Science, Data Base
- (7) Ecologist
- (8) First Aid (own species)
- (9) Immunologist
- (10) Mechanical Engineer
- (11) Meteorologist & Analyst
- (12) Pathologist
- (13) Toxicologist
- (14) Vehicular Operations

The following skills are at BASE + 30%:

- (1) Laser Pistol
- (2) Rifle (1 only)

5.2.4 Chemistry

- (1) Biochemist
- (2) Chemist (the generalist)
- (3) Geochemist
- (4) Pharmacologist

5.2.5 Computer Science

- (1) Application Specialist
- (2) Artificial Intelligence Specialist
- (3) Data Base Systems Specialist
- (4) General Programming Specialist
- (5) Operating Systems Specialist
- (6) Real Time Systems Specialist
- (7) Security Systems Specialist

5.2.6 Crime

- (1) Administrator
- (2) Bribery Specialist
- (3) Legal Semanticist
- (4) Orator
- (5) Specialist in 1 weapon
- (6) Streetwise Specialist

5.2.7 Engineering

- (1) Civil Engineer
- (2) Communications Engineer
- (3) Contragravity Engineer
- (4) Computer Engineer
- (5) Chemical Engineer
- (6) Electrical Engineer
- (7) Jump Drive Engineer
- (8) Life Support Engineer
- (9) Mechanical Engineer
- (10) Power Engineer
- (11) Robotics Engineer
- (12) Sensor and ECM Systems Engineer
- (13) Shield Generator Engineer
- (14) Naval Engineer
- (15) Weapon Systems Engineer

5.2.8 Espionage (Industrial Or Otherwise)

- (1) Acting
- (2) Bargaining Specialist
- (3) Bribery Specialist
- (4) Computer Science, Security Systems
- (5) Computer Science, Data Base
- (6) Computer Science, Operating Systems
- (7) Counter-Intelligence
- (8) Forgery
- (9) Hide Item
- (10) Intelligence
- (11) Orator
- (12) Pick Pocket
- (13) Spot Hidden

5.2.9 Law

- (1) Business Arrangements Law
- (2) Credit Law
- (3) Criminal Law
- (4) Private Inter-Systems Law
- (5) Procedural Law
- (6) Taxes

Other areas included at skill level EQUAL to the skill level of the primary subfield are as follows:

- (7) History
- (8) Legal Semantics
- (9) Space Law

Other areas automatically included as Secondary Subfields are as follows:

- (10) Bargaining Specialist
- (11) Computer Science/Data Base
- (12) Diplomat
- (13) Orator

5.2.10 Law Enforcement

The primary subspecialty of all law enforcement officers is Streetwise. The following skills are secondary subfields for the law enforcement officer:

- (1) Criminal Apprehensions
- (2) Criminal Law
- (3) First Aid (own species)
- (4) Legal Semantics
- (5) Martial Arts — Evade
- (6) Oratory
- (7) Spot Hidden Object

The following skills are begun at BASE + 30%:

- (1) Kite Shield
- (2) Light Mace
- (3) Handblaster
- (4) Magstunner
- (5) Pistol (38 Calibre)
- (6) Sonic Stunner
- (7) Shotgun
- (8) Tonfa
- (9) Vac-Suit Operations
- (10) Vehicular Operations

5.2.11 Line Officers

5.2.11.1 NON-SPECIALIZED

- (1) Administrator
- (2) Astrogator/Navigator
- (3) Pilot
- (4) Tactician

Other areas automatically included as Secondary Subfields only are as follows:

- (5) Command Skill
- (6) Command Suit Operation
- (7) Legal Semantics
- (8) Orator
- (9) Sensor and ECM Operator
- (10) Space Lawyer
- (11) Weapon Systems Operator

Note Also: All line officers are trained to the 50% level in Vac-Suit Operations (or to BASE + Manipulation Bonus, whichever is higher).

5.2.11.2 ALIEN CONTACT

- (1) Computer Science/Data Base
- (2) Contact Xenologist
- (3) Cultural Anthropologist
- (4) Historian
- (5) Linguist
- (6) Psychologist
- (7) Sociodynamicist
- (8) Streetwise Specialist
- (9) Xenolinguist
- (10) Xenopsychologist

Other areas automatically included as secondary subfields only are as follows:

- (11) Administrator
- (12) Astrogator/Navigator
- (13) Command Skill
- (14) Command Suit Operation
- (15) Legal Semanticist
- (16) Orator
- (17) Pilot
- (18) Space Law
- (19) Tactician

Note Also: All line officers are trained to the 50% level in Vac-Suit Operations (or to BASE + Manipulation Bonus, whichever is higher).

5.2.11.3 COMMUNICATIONS

- (1) Communications Engineer
- (2) Communications Operator
- (3) Cultural Anthropologist
- (4) Linguist
- (5) Psychologist
- (6) Xenolinguist
- (7) Xenopsychologist

Other areas automatically included as secondary subfields only are as follows:

- (8) Administrator
- (9) Astrogator/Navigator
- (10) Command Skill
- (11) Command Suit Operation
- (12) Legal Semanticist
- (13) Orator
- (14) Pilot
- (15) Space Law
- (16) Tactics

Note Also: All line officers are trained to the 50% level in Vac-Suit Operations (or to BASE + Manipulation Bonus, whichever is higher).

5.2.11.4 SECURITY

- (1) Administrator
- (2) Counter-Insurgency Specialist
- (3) Counter-Intelligence Specialist
- (4) Criminal Apprehensions Specialist
- (5) Intelligence Operative

Other areas automatically included as secondary subfields only are as follows:

- (8) Astrogator/Navigator
- (9) Command Skill
- (10) Command Suit Operation
- (11) Legal Semanticist
- (12) Orator
- (13) Pilot
- (14) Space Law
- (15) Tactician

Note Also: All line officers are trained to the 50% level in Vac-Suit Operations (or to BASE + Manipulation Bonus, whichever is higher).

5.2.11.5 WEAPONS

- (1) Astrogator/Navigator
- (2) Pilot
- (3) Sensor and ECM Engineer
- (4) Sensor and ECM Operator
- (5) Tactician
- (6) Weapon Systems Engineer
- (7) Weapon Systems Operator

Other areas automatically included as secondary subfields only are as follows:

- (8) Administrator
- (9) Command Skill
- (10) Command Suit Operation
- (11) Legal Semanticist
- (12) Orator
- (13) Space Law

Note Also: All line officers are trained to the 50% level in Vac-Suit Operations (or to BASE + Manipulation Bonus, whichever is higher).

5.2.12 Linguistics

- (1) Cultural Anthropology
- (2) Linguistics
- (3) Psychology
- (4) Xenolinguistics
- (5) Xenopsychology

5.2.13 Martial Arts

Martial artists in **OTHER SUNS** have three skills in which they are equally proficient (skill = 35% + INT + Knowledge bonus):

- (1) Disarm
- (2) Evade
- (3) Hand-to-Hand

5.2.14 Mathematics

- (1) Algebraist
- (2) Analysis Specialist
- (3) Geometry Specialist
- (4) Statistician or Probability Theorist
- (5) Topologist

5.2.15 Medicine

- (1) Immunologist
- (2)-(11) Medicine for 10 species
- (12) Pathologist
- (13) Pharmacologist
- (14) Psychologist
- (15) Robopsychologist
- (16) Toxicologist
- (17) Xenobiologist
- (18) Xenopsychologist

5.2.16 Merchant Marine

- (1) Administrator
- (2) Math, Analysis
- (3) Astrogation/Navigation
- (4) Bargaining
- (5) Computer Science, Applications
- (6) Contract Law
- (7) Economics
- (8) Legal Semanticist
- (9) Orator
- (10) Piloting
- (11) Space Law
- (12) Vac-Suit Operations

5.2.17 Physics

- (1) Astrophysicist
- (2) Cosmologist
- (3) General Relativity
- (4) Nuclear Physicist
- (5) Physicist (the generalist)

5.2.18 Planetology

- (1) Cartographer
- (2) Geochemist
- (3) Geologist
- (4) Meteorologist
- (5) Oceanographer
- (6) Planetologist (the generalist)

5.2.19 Sapientology

- (1) Archeologist
- (2) Contact Xenologist
- (3) Cultural Anthropologist
- (4) Historian
- (5) Linguist
- (6) Physical Anthropologist
- (7) Robopsychologist
- (8) Sociodynamicist and Economist (both at same level)
- (9) Sociologist
- (10) Xenolinguist
- (11) Xenopsychologist

5.2.20 Soldier

- (1) Armorer
- (2) Command Skill
- (3) Vehicular Operations
- (4) Pilot
- (5) Specialist in 1 handgun and 1 rifle
- (6) Specialist in 1 heavy weapon
- (7) Vac-Suit and Scout Armor Specialist

NOTE: If Item 7 is chosen as primary subfield, and the initial skill level is 50% or higher, then the soldier will also have the skill of Marauder I operation as a secondary specialty.

5.2.21 Survival Expert

All skills listed for survival expert begin at 35% + INT + Knowledge bonus.

- (1) Climbing
- (2) Hide In Cover
- (3) Move Quietly
- (4) Scout Suit Operation
- (5) Sense Ambush
- (6) Set Ambush
- (7) Skiing
- (8) Spot Hidden Object
- (9) Spot Traps
- (10) Swimming
- (11) Vac-Suit Operation
- (12) Vehicular Operation

Mikhail had his day in court. And there would be some who would say that he lost. Having been found guilty on charges of second degree murder, Mikhail found himself facing a very stiff prison term. But the judge, being a kind and merciful soul, and seeing that Mikhail was still a young man with a reasonably clean record, gave Mikhail a choice — he could spend the next twenty terrestrial years making small rocks out of large ones (assuming time off for good

behavior) or he could volunteer for a 20 year tour of duty in the service of one of the Arms of the Hegemonic OverGovernment. And so Mikhail found himself learning how to become a useful enlisted member of the Ground Arm — a member of the poor bloody infantry.

Mikhail's specialty, then, is Soldier, and his primary subfield is Vac-Suit and Scout Armor Operations (at 17 + 35 + 12 = 64%). Further, as his initial skill level is over 50% in this area, he will also have the skill of Marauder I operation at (64/2) = 32%.

And Mikhail adds the following skills:

(1)	Armorer	— at	32%
(2)	Command Skill	— at	32%
(3)	Vehicular Operations	— at	35%*
(4)	Piloting	— at	32%
(5A)	Blaster pistol	— at	51%*
(5B)	Type I blaster rifle	— at	57%*
(6)	Shoulder fired rocket launcher	— at	36%*
(7A)	Vac-Suit Operations	— at	64%
(7B)	Scout Suit Operations	— at	64%
(8)	Marauder I Suit Operations	— at	32%

* = In these cases, Mikhail's natural ability with these skills (base plus bonuses) exceeds the values that he could expect from his specialization — and his skill is set to the higher value.

5.3 SKILL DESCRIPTIONS

For each of the skills, the costs for training are given in an abbreviated notation (e.g. 150/350/1000/1650/2650 for Acting). The first number gives the cost of training starting from a skill level in the 0-25% range, the second gives the cost in the 26-50% range, the third in the 51-75% range, the fourth in the 76-100% range, and the final number gives the training cost in the 101+% range.

5.3.1 Acting

This skill is the measure of the Adventurer's ability to fool his audience — any audience. It is a measure of his ability to project a believable character quite different from himself.

This is a 0% base special skill, and the training costs are as follows: 150/350/1000/1650/2650.

5.3.2 Administration

This skill represents the character's familiarity with and understanding of bureaucratic agencies. It is an indication of his ability to move within the miles of red tape, and to make the paperwork work for him, instead of against him.

In the case of military personnel, the administration skill confers other benefits as well. For each 25% skill in administration, an officer may attempt to push for promotion of one subordinate per six month period and, if his administration roll is successful, the subordinate will have an extra chance for promotion in that period, and will have an extra 20% chance of being promoted. Similarly, an officer may attempt to prevent promotion of one subordinate per 25% skill per six month period — and if he succeeds, the promotion chance of that character is reduced to 1%. Even if he fails in his attempt to block promotion, the promotion chances of the character are reduced by twenty-five per centile points. In order to force the transfer of an unwilling individual to another assignment, it is only necessary that the officer in question succeed in his administration roll. If the subject of the administrative moves is aware that the action is being taken and has an administrative skill of his own, he may attempt to block the moves via use of his own skill. Should he succeed, any attempt to harm him through the bureaucracy fails.

This is a 0% base knowledge skill, and the training costs are as follows: 50/100/200/350/450.

5.3.3 Algebra

This skill is the measure of the character's understanding of that area of mathematics referred to as algebra. This covers group theory (necessary for Nuclear Physics — and a limiting skill factor on that skill), ring theory, field theory, linear algebra and matrix theory (limiting factors on a character's skill level in the areas of Economics and Sociodynamics).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.4 Analysis

This skill is the measure of the character's understanding of those areas of mathematics referred to as real and complex analysis, and also measure theory (and hence probability theory), as well as differential equations.

The following is a list of specialization areas where the character is limited to his skill level as a Mathematical Analyst or his skill level in the specialization area, whichever is lower:

- (1) Astrogator/Navigator
- (2) Astrophysicist
- (3) Ecologist
- (4) Economist
- (5) Meteorologist
- (6) Robopsychologist
- (7) Sociodynamicist

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.5 Archeology

This skill is the measure of the character's ability to reconstruct, from the material remains (i.e. fossil relics, artifacts, and monuments) of prior civilizations, the nature of those civilizations and the natures of the creatures that lived in those civilizations. The higher the skill level, the more the character is able to extract in the way of useful information from a set of artifacts on a regular successful skill roll.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.6 Armorer

This is the ability to repair or modify Hegemonic weapons and/or combat suits. Each attempt at using the skill requires one hour, and each successful repair attempt repairs 1D10 in points of damage to a weapon or to a given hit location on armor (if a critical is rolled in the repair roll, restore 1D100 points).

An Armorer may assist a Robotics Engineer in repair of a Robot and, as long as there is a Robotics Engineer Specialist to assist, his repair skill is his skill as an Armorer or the skill of the Robotics Engineer, whichever is higher. If there is no Robotics Engineer Specialist available, an Armorer may attempt to repair the robot at half his Armorer skill. He may NOT attempt to build or modify an existing robot unless he is working with a Robotics Engineer.

This is a 0% base special skill, and the costs of training are as follows: 100/250/550/1050/1600.

5.3.7 Astrogation/Navigation

This is the measure of the character's ability to find his way in Jump Space or Normal Space without recourse to the ship's navigational computer systems. Useful really only when the computer systems are down, it is then essential.

If the computer is not available for navigational computations, an Astrogation/Navigation roll must be made once each hour. A failed roll indicates that the ship is lost in Jump space. A ship that becomes lost must leave Jump space immediately or be lost permanently. Once in normal space, a successful roll in the skill will redetermine the ship's correct position and allow a safe return to Jump space (this roll may be attempted only once per month per character). If the computer of a lost ship is repaired, the computer will redetermine the ship's position after 10 days in normal space.

If there are no planets within two light-seconds of a ship in normal space, and a computer is not available for navigational computations, then either an Astrogation/Navigation skill roll or a roll of 01 on 1D100 (LUC of the Pilot) must be made to bring the ship safely to a planet through normal space. If there is a planet within two light seconds of the ship, 2 successful piloting rolls will bring the ship safely to planet orbit (and then one further successful one will land the ship safely on the planet).

The exercisable skill level of this skill is limited to the character's skill in Analysis.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.8 Astrophysics

This is the measure of the character's understanding of and ability to use knowledge of that field of astronomy dealing with the physical and chemical constitution of celestial bodies. The Astrophysicist may function as a Planetologist (at one quarter his Astrophysics skill level), but his forte is the analysis of stellar phenomena. Use of this skill will allow the character to readily identify star types of various stars, and isolate which stars are most likely to possess planets habitable and inhabited among those viewed.

The astrophysicist will also be able to handle questions of stellar evolution — and how to accelerate it. That is, it is members of this specialty that determined how to CAUSE a star to become a nova or supernova, and an exercise of this specialty is necessary in order to successfully use the Nova weapon necessary for this stellar detonation.

The exercisable skill level of this skill is limited to the character's skill in Analysis (see Analysis Specialist earlier in this section).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.9 Bargaining

This is the ability of the Adventurer to get the most for his money in a barter situation, or in a high stakes negotiation. For each 30% in this skill (drop fractions), a successful roll adjusts the cost for goods by 10% (in favor of the successful bargainer). A clean action roll results in a 15% adjustment per 30% in skill, a critical roll results in a 20% favorable adjustment per 30% in skill. A fumble results in a flat 25% adjustment unfavorable to the user of the skill.

This is a 6% base persuasion skill, and the training costs for this skill are as follows: 150/350/650/1000/1350.

5.3.10 Biochemistry

This skill allows a character to determine the probable effects of various compounds when administered to members of various species (thus providing a check on the product of the pharmacologists' exercises, as well as protecting against possible problems from unusual compounds found on worlds being explored). When a biochemistry lab is available, each use of the skill requires four (4) hours. If computers are available, but a laboratory is not, each use of the skill requires sixteen (16) hours. If computers or laboratories are not available, each use of the skill requires six (6) months.

This skill will also allow the character to prepare new drugs as well as counteragents for existing drugs. With laboratory and computer facilities, this use of the skill will take 1D6 weeks. With computer facilities alone, each such exercise of this skill will take 4D6 weeks. Without computers or laboratory facilities, each attempt to develop a drug or counteragent will take 2D6 years.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.11 Biology (Generalist)

This is the Adventurer's ability as a generalist in the area of biology. The solution to any problem not lying in any of the other subfields will be found through the generalist's knowledge.

This is the catch-all area for all the problems that do not easily fall into any of the other categories within the biological sciences, and is to be so treated by the referee. This skill may be used in place of any of the other biological science skills at one-quarter the skill level.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.12 Biophysics

The biophysicist in OTHER SUNS is a maker and repairman of cyborgs, and a student of the physical and biological problems thereof.

It is the ability to repair or modify the weapons, equipment, and body surrounding same, in the cyborgs of OTHER SUNS. Each attempt at using the skill requires one hour, and each successful repair attempt repairs 1D10 in points of damage to a weapon or to a given hit location (if a critical is rolled in the repair roll, restore 1D100 points).

A Biophysicist may assist a Robotics Engineer in repair of a Robot and, as long as there is a Robotics Engineer Specialist to assist, his repair skill is his skill as a Biophysicist or the skill of the Robotics Engineer, whichever is higher. If there is no Robotics Engineer Specialist available, a Biophysicist may attempt to repair the robot at one-quarter his Biophysicist skill. He may not attempt to build or modify an existing robot, however, unless he is working together with a Robotics

Engineer Specialist.

This is a 0% base knowledge skill, and the cost of training is as follows: 100/250/550/1050/1600.

5.3.13 Botany

This is a measure of the character's understanding of plant biology among the known forms of plantlife throughout the Hegemony. It is the character's ability to quickly grasp details of plant biology when dealing with new and unusual plants. It will also allow the character to determine which, if any, constituents of a plant sample might be of possible medicinal or commercial value.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.14 Bribery

This is the character's ability to judge when, to whom, how, and how much, to offer a bribe in order to achieve some specified end (e.g. getting a customs official to look the other way at the right time).

It is a 0% base special skill, with training costs as follows: 100/250/650/1350/2000.

5.3.15 Business Arrangements Law

This specialty deals with the broad way that people organize their efforts in a cooperative fashion to enrich themselves. Corporate Organizational law, the means of creating entities separate from their creators, and the whole field of Contracts (from means of making to enforcement) are contained here, as are any related financings through rights-as-a-member-of-an-organization (in American law, Securities). Theoretically the toughest of all legal systems because it grapples with pure fictions quite often.

As applied to American law, this would cover the areas of Corporate Formation, Reorganization, and Liquidation. Securities, Partnerships, Contracts, Remedies, Admiralty/Ownership-Management.

This is a 0% base knowledge skill, and the skill level exercised in this skill may not be higher than the character's skill in Legal Semantics.

The training costs for this skill are as follows: 100/250/550/1050/1600.

5.3.16 Camouflage

This is the Adventurer's ability to disguise or change the appearance of vehicles, guns, installations, etc., to conceal them from view. A successfully camouflaged object will not be spotted unless a Spot Hidden Object skill roll is made, provided that the object camouflaged is being searched for only by visual means (camouflaging a metallic vehicle will not protect it from radar detection).

This is a 12% base stealth skill, and the training costs are as follows: 75/150/300/600/1200.

5.3.17 Cartography

This is the character's ability as a master map maker. It is quite a different skill from the crude Map Making skill, entailing photo-interpretation, precision drafting, surveying, etc.

This skill (through its photo-interpretation aspect) may be used (from orbit) to detect and isolate features of any particular interest to an exploratory party.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.18 Cheating

This is the character's ability to cheat (by tricky dealing, palming cards, and similar tricks) in games of chance where manipulation of physical objects might prove useful in winning. This skill can also be used as a measure of the character's ability to carry out simple close-up magic work, such as (the obvious) card tricks, pulling coins 'out of people's ears', etc.

This is a 9% base manipulation skill, and the training costs are as follows: 50/150/400/900/1350.

5.3.19 Chemistry (Generalist)

This is the character's ability as a generalist in the area of chemistry. The solution to any problem not lying in any of the other subfields will be found through the generalist's knowledge.

This is the catch-all area for all the problems that do not easily fall into any of the other categories within the chemistry specialty, and is to be so treated by the referee. This skill may be used in place of any of the other chemistry science skills at one-quarter his skill level as chemist.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.20 Climbing

This is the Adventurer's ability to climb any normal obstacle (a wall, a cliffside, or the like). A negative modifier should be applied to the skill level when extremely difficult climbs are attempted (as up a sheer granite cliff).

This is a 6% base manipulation skill, and the training costs for this skill are as follows: 50/100/200/400/800.

5.3.21 Command Skill

This is the Adventurer's ability to yell 'CHARGE!' and have his subordinates follow him — straight into hell, if necessary.

In the military, it also is a factor in the probability of promotion for the character.

The basic probability of promotion for a character in the military is $(100 - (\text{current rank}) + (\text{Command skill}))$, so that an officer with numerical rank 112 (roughly equivalent to a USN full Lieutenant) with a command skill level of 47% would have a base chance of $100 - 112 + 47 = 35\%$ chance of promotion. When promoted, a character's command skill is reduced by two percentile points for each numerical rank he is promoted (thus, in the preceding example, if the rank 112 officer was promoted by 3 steps in rank, to 115, his command skill would drop to $47 - 2 \times 3 = 47 - 6 = 41\%$).

This is a 0% base special skill, and the training costs are as follows: 100/250/550/800/1050.

5.3.22 Communication Systems Operation

This is the ability of the character to operate the complex communications systems available in the Hegemony. Without this skill, the complex C+ and long range normal space transceivers can only be operated by computers — which must be run by someone with the Computer Science, Real Time Systems, Applications, or Data Base Systems skills (at half their skill percentage).

This is a 0% based knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.23 Computer Science

There are several different computer science skills in **OTHER SUNS**. The training costs for all of the computer science skills are as follows: 100/250/550/1050/1600.

5.3.23.1 APPLICATIONS

This is the character's skill at programming and designing scientific applications programs to assist in the analysis of various problems in the scientific and engineering fields.

This is a 0% base knowledge skill.

5.3.23.2 ARTIFICIAL INTELLIGENCE

This is the character's skill in programming, designing, and understanding the great machine intelligences that have been developed in the Hegemony.

This is a 0% base knowledge skill.

5.3.23.3 DATA BASE SYSTEMS

This is the character's ability to ask the right questions of the machines in order to get the desired answers. It is a measure of the character's ability to 'think like a machine' in order to phrase the question so that the desired data and only the desired data results. The data handling capabilities of the Hegemonic computers being nothing short of astronomical, quick retrieval of the key item (such as a comparison check by silhouette for ship type and recall of last reported locations of all ships corresponding to said silhouette) requires an exercise of this skill. The time required for someone in this specialty to enter the proper keys to any given question is six seconds — for those not trained in this skill the time is measured not in seconds, but in days or weeks.

This is a 0% base knowledge skill.

5.3.23.4 GENERAL PROGRAMMING

This is the Adventurer's ability to write a simple program to solve a simple problem and debug same. Depending upon the complexity of

the problem this might take an hour, a day, a week, a month or longer. Programs may be prepared well in advance of use, but the final test is in the use.

A non-fumbled failed use of this skill means that the program will not run correctly, but that it will do so in an obvious manner (one indicating that the program did fail to produce the correct result, but not one resulting in disastrous consequences). A fumbled use of this skill means that the program will produce erroneous results which will either be (a) relatively difficult to detect, or (b) totally disastrous in their consequences.

For example, if an Adventurer writes a program designed to land a spacecraft and the skill roll is failed (but not fumbled), then when the program is tried in the field the spacecraft might land in the wrong place, or the program might just abort, leaving the spacecraft unharmed but still in orbit. If the skill roll were fumbled, on the other hand, the spacecraft might crash.

Unlike the other more specialized computer science skills it is assumed that an informed and literate citizen of the Hegemony will develop at least some familiarity with the common computers and programming languages of the Hegemony. In consequence, this is a 15% based knowledge skill.

5.3.23.5 OPERATING SYSTEMS

This is the character's understanding of the operating systems of all of the major computer systems currently 'in vogue' throughout the Hegemony and his ability to apply that understanding to both the design of new systems, and the efficient operation of the current systems. It will allow him to 'crack' a new system on an unknown computer type in 2D4 x 8 hours from a standing start, given that his skill roll is successfully made.

This is a 0% base knowledge skill.

5.3.23.6 REAL TIME SYSTEMS

This is the Adventurer's ability to design, maintain, implement and modify real time systems — such as flight software, air traffic control software, telecommunications software, etc. This skill will allow the character to modify such a system while the system is in operation (once appropriate software security safeguards have been bypassed, of course).

This is a 0% base knowledge skill.

5.3.23.7 SECURITY SYSTEMS

This is the Adventurer's ability to design, implement, and if needs be, bypass computer security systems. It will allow him to safeguard his own system against unauthorized modifications and/or access, and will allow him to gain unauthorized access to other machines.

This is a 0% base knowledge skill.

5.3.24 Contact Xenology

This is the skill of the First Contact man. It measures ability to quickly and accurately judge how the other side will react to the situation based on an almost supernatural talent for playing hunches successfully.

Specialists in this skill are well versed in the art of peaceful contact with other intelligent lifeforms, and are extremely well versed in all the approaches that have been tried in past, both successful and not.

This is also the skill of guessing the cultural mores of a previously unknown group successfully after only a brief period of observation.

The consequences of failed rolls (minor misinterpretations) or fumbles (blunders that lead to blood being spilled) are too obvious, not to mention numerous, to list here.

This is a 0% base observation skill, and the training costs are as follows: 150/350/1000/1650/2650.

5.3.25 Cosmology

The science of cosmology is that branch of astronomy which deals with the origin, structure, and space-time relationships of the universe.

The cosmologist deals with problems relating to the theory behind the temporal, paratemporal, or space-twisting drives in use in the Hegemony.

The exercisable skill level in this field is limited by the character's skill in the fields of both Geometry and Topology.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.26 Counter-Insurgency

This is the ability to deal successfully with the rebels, revolution-

aries, and terrorists with a cause that trouble the separate system governments in the Hegemony.

Successful application of the skill will give the character information as to the probable actions taken (or to be taken) by any such rebels under the known conditions in the campaign environment, as well as the best possible responses. Precisely how much information is provided by the referee should depend upon how skilled the character is, and on how carefully the player phrases any questions of the referee.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.27 Counter-Intelligence

This is the art of recognizing intelligence agents for what they are. It is the skill of a spy upon other spies.

In any encounter with a potential agent, a skill roll in this skill successfully made means the referee should provide sufficient additional information that it becomes clear to the player if he is in the presence of a spy. Further, in such a situation, the character is assumed to have recognized the fact as well.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.28 Credit Law

This is the apportionment of ownership area of law. Future ownerships will be balanced against possession in the present and the past. All property will essentially be dealt with in this law, including Patents and Copyrights. The use of a possession is governed here according to who ought to be rewarded for the cost they paid. Most of the legal action will take place here in terms of volume, as property rights change hands in the marketplace.

The areas in current American law that fall within this category include commercial lending, mortgages, all financial law (rules of money ownership), patents, copyrights, bankruptcy, sales and payments, property, and inheritances.

This is a 0% base knowledge skill, and the skill level exercised in this skill may not be higher than the character's skill in Legal Semantics.

The training costs for this skill are as follows: 100/250/550/1050/1600.

5.3.29 Criminal Apprehensions

This is the Adventurer's ability to become the quintessential detective. Applications of this skill will allow the character (if successful) to determine the facts of any event from the physical evidence (if such is at all possible). Applications of this skill will also allow the character to determine whether or not it is likely (and how likely it is) that a given witness (i.e. any other character — player character or otherwise) is telling the truth. This latter method of applying this skill may only be used where the character is familiar with the species of the witness.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.30 Criminal Law

The balancing of individual interests against societal norms of behavior. It will usually have society as the injured party — but I place Tort law here. The most common law for individuals to be involved with — it balances your right to swing your fist and my nose, on the simplest level. Failures of duty would be another substantive area here.

Covered areas from current American law include torts, environmental protection law, anti-trust law, military law, and redistributive law.

This is a 0% base knowledge skill, and the skill level exercised in this skill may not be higher than the character's skill in Legal Semantics.

The training costs for this skill are as follows: 100/250/550/1050/1600.

5.3.31 Cultural Anthropology

Based on observation of the members of an existing civilization, this is the measure of the Adventurer's to determine the nature of those intelligences, and the nature of their society. The higher the skill level, the more the character is able to extract in the way of useful information from a set of observations on a successful skill roll.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.32 Diplomacy

The skill of diplomacy is applied in much the same way as Oratory, save that instead of being convinced of the truth of someone's words, the target of the diplomat's skill is instead convinced that he should alter his actions, that he should act as suggested by the diplomat (or that he should refrain from acting, in accord with the diplomat's wishes and arguments).

A character with the diplomacy skill may attempt to resist the skill use of another character (he simply need roll at or under his own skill percentage on D100).

The diplomacy skill will not cause a character to act in violation of any deeply held beliefs, though it may cause him to hesitate before acting. For example, if a diplomat were to work his wiles on a pacifist and a violent thug, he might not be able to make the pacifist fight to protect himself, but the diplomat might be able to make the thug refrain, at least temporarily, from attacking the pacifist.

This is a 0% based persuasion skill, and the training costs are as follows: 150/350/1000/1650/2650.

5.3.33 Ecology

This specialty deals with that branch of science concerned with the interrelationships of organisms and their environments. It is the study of the totality or pattern of relations between organisms and their environment (which, of course, includes the other organisms present).

Use of this skill allows the Adventurer to determine precisely the effects upon the natural environment of any desired course of action (e.g. killing off all predators for a given herbivorous species will result in a bloom of that species — and subsequent mass starvations). The skill level exercised in this skill is limited by the character's skill level in both the Analysis Specialty in mathematics and either the Computer Science/Applications skill or the Computer Science/General Programming skill.

This is a 0% base knowledge skill, and the training costs are as follows: 400/600/800/1000/1200.

5.3.34 Economics

This is the skill of judging the economic consequences of any given set of actions. It will also aid the mercantile Adventurers in judging correctly which will be the most profitable trade commodities and by how much.

The exercisable skill level of this skill is limited by the Adventurer's skill level in Analysis, Algebra, and Computer Science (either Applications or General Programming, whichever is higher).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.35 Engineering

Engineering skill in **OTHER SUNS** is not a measure of research engineering ability so much as a measure of field engineering skill. The engineers of **OTHER SUNS** are not design engineers so much as ship-board engineers, all of whose life goes into mastering the techniques necessary to keep the massive energies of a starship tamed and under control and to keep the starship operating smoothly and efficiently.

This is the ability of the character to diagnose faults in, repair or modify this particular system on one of the Hegemonic spacecraft. It is also a measure of the character's ability to determine the state of repair (i.e. the system reliability percentage) for this particular ship component on any spacecraft of comparable design to the Hegemonic spacecraft on which he has been trained.

An attempt at repair requires one hour's uninterrupted time, and a successful repair attempt will improve the system's reliability by 1D10 in percentile points. A critical roll on the repair attempt will improve the system's reliability by 1D100 in percentile points. If a repair roll is fumbled, roll 1D100 again — if the result is another fumble, reduce system reliability by 1D100 in percentile points, and if the result is not another fumble, reduce system reliability by 1D10 in percentile points (systems whose reliability is thereby reduced below 0 are considered unrepairable).

All engineering skills are 0% base knowledge skills, and the training costs are as follows: 125/250/500/1000/1500.

5.3.35.1 CHEMICAL

The chemical engineer is the specialist in industrial applications of chemical science knowledge. As such, he will be most familiar with the process and physical design of large scale chemical manufacturing facilities among the chemistry specialists in **OTHER SUNS**, and will be best able to reorganize and redesign same for maximum efficiency and yield.

A successful use of this skill will allow the character to recognize the function of a chemical manufacturing facility, analyze its design, and determine and duplicate the function of the facility — regardless of whether or not the facility is still 100% operational, and whether or not the facility is a product of Hegemonic technology. The chemical engineer can thus be of inestimable value in assisting in what one might call industrial archeology on dead worlds with surviving industrial facilities.

5.3.35.2 CIVIL

This is the skill of designing large structures that will, under specified conditions, refrain from falling down (and embarrassing a large number of engineers, not to mention probably killing large numbers of people). It is also the skill of constructing said large structures to the design specifications given. It may also be used for the analysis of existing large structures (to assist in determining what technological level was necessary in order to build them in the first place).

In addition, this skill is indicative of the character's knowledge of metallurgy and materials' science.

5.3.35.3 COMMUNICATIONS SYSTEMS

This is the measure of the adventuring engineer's knowledge of the communications systems commonly used aboard starships and at ground stations.

5.3.35.4 COMPUTER SYSTEMS

This is the measure of the engineer's ability to modify and/or repair the complex computer systems common throughout the Hegemony.

5.3.35.5 CONTRAGRAVITY SYSTEMS

This is the measure of the engineer's understanding of the contragravity systems employed in starships and intrasystem spacecraft for normal space propulsion.

5.3.35.6 ELECTRICAL

This field is the study of electrical and electronic systems. As such, the character's skill is the measure of his ability to analyze, diagnose faults in, and design such systems. It is also a measure of the character's ability to determine the functional capabilities of some alien electronic system — without turning it on and finding out the hard way (on a fumbled roll while attempting to analyze such a system the artifact is either triggered into action or destroyed).

5.3.35.7 JUMP DRIVE SYSTEMS

This is the ability of the engineer with regards to the handling, repair and maintenance of the stardrive systems that are used to propel Hegemonic craft at FTL (faster-than-light) speeds.

5.3.35.8 LIFE SUPPORT SYSTEMS

This is the ability of the engineer to repair and/or maintain any of



the common life support systems found aboard Hegemonic spacecraft, or in installations on hostile environment worlds.

5.3.35.9 MECHANICAL

The mechanical engineer is the specialist in industrial applications of the knowledge of mechanical systems. As such he will be most familiar with the process and physical design of large scale manufacturing facilities among the specialists in **OTHER SUNS**, and will be best able to reorganize and redesign same for maximum efficiency.

A successful use of this skill will allow the character to recognize the function of a manufacturing facility, analyze its design, and determine and duplicate the function of the facility, regardless of whether or not the facility is still 100% operational, and whether or not the facility is a product of Hegemonic technology. The mechanical engineer can thus be of inestimable value in assisting in what one might call industrial archeology on dead worlds with surviving industrial facilities.

5.35.10 NAVAL

This is the engineer's ability to handle hull modifications and repairs for a spacecraft. A successful use of the skill will allow him to improve the overall reliability of the hull and it will also allow him to repair damage done in the form of hit points to various hull plates or sections of ship. A successful repair attempt in this latter mode will restore 1D10 damage, a critical roll will restore 1D100 damage points, and a fumble will cause an additional 1D10 damage to the indicated area (the affected area for repair attempt is a square section of material 3.0 meters on a side in this mode).

5.3.35.11 POWER SYSTEMS

This is the engineer's ability to modify or repair the common power supply systems (both active generators and battery systems) employed on Hegemonic vehicles.



5.3.35.12 ROBOTICS

This is the engineer's repair and modification capability with regards to robotic units employed commonly throughout the Hegemony. This skill may also be used for the Armorer skill at half effectiveness or, if a specialist Armorer is present the robotics engineer may assist the Armorer (and function at his skill level as a robotics engineer).

5.3.35.13 SENSOR AND ECM SYSTEMS

This is the engineer's repair skill with the sensors and electronic counter measure systems of Hegemonic starcraft and warcraft.

5.3.35.14 SHIELD GENERATOR SYSTEMS

This is the engineer's repair skill with the shield generator systems of Hegemonic starcraft and warcraft.

5.3.35.15 WEAPON SYSTEMS

This is the engineer's repair skill with the weapons systems commonly employed by Hegemonic starcraft and warcraft.

5.3.36 Evaluate Treasure

This is the Adventurer's ability to judge the value of a commodity in the unusual commercial arena known as the black market (where goods not normally available to honest citizens can be found, such as certain drugs or weapons). This skill will not insure that any dealings with black marketeers will be safe, merely that the Adventurer might have a vague idea of whether the services or goods being offered are being offered at the common, accepted, black market prices. The Streetwise skill will be needed in order to spot possible scams.

This is a 6% base knowledge skill, and the training costs are as follows; 125/250/500/1000/1500.



5.3.37 First Aid

A successful use of this skill will allow a character to stop bleeding, and cure 1D3 points damage in any given hit location. It is a species specific skill and must be learned from base for each different species. One minute is needed per use of the skill (and this skill may not be used twice for the same location).

A critical roll in this skill results in 2D3 points of cure to the indicated location. A fumbled roll results in an additional 1D3 points damage being done to the location and 2D4 END damage done to total END.

The base value for this skill is 6% in the character's own species, and 0% base in all others. It is a knowledge skill and training costs are as follows: 50/100/200/300/400.

5.3.38 Forgery

This is the Adventurer's ability to produce fake documents (or to recognize same). A successful use of this skill would, for example, allow the character to produce fake ship's papers.

Training is available in this skill only from two sources — government intelligence services, and the underworld. When seeking training from the government, it is necessary to have what the government would regard as a legitimate reason for learning this skill. To find a teacher in the underworld, a successful Streetwise roll is necessary.

This is a 9% base manipulation skill, and the training costs are as follows: 50/150/500/850/1200.

5.3.39 General Relativity

The physicist whose specialty is general relativity is, in the terms of the game, an expert in the physics of black holes, gravity in general, and the physics of the FTL Jump space used by the starships of the Hegemony. In addition, he will be familiar with the theories of multiple time tracks, and the theory behind time and cross time travel.

Familiar with the physics of gravity, the physics of spacetime travel, the general relativity specialist will be of greatest value on astrophysical research missions where the understanding of such obscure fields might well save the expedition. (For example, through his understanding of black holes, he might be able to plot a course for a ship — apparently trapped in a rotating charged black hole — that would lead to safety).

The exercisable skill level in this specialty is limited to the skill level of the character in the field of Geometry.

This is a 0% based knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.40 Genetics

Successful application of this skill will allow the Adventurer to reconstruct the appearance of animals from any small intact sample (via doing a gene map, and then developing the creature in simulation on a computer) or to recreate the creature itself from the genetic sample. This skill will also allow the character to alter the genetic structure of a creature in any desired fashion (such biological engineering is only permitted on unintelligent life forms in the Hegemony).

Applications of this skill require from 1D3 days (for a computer reconstruction of an extinct lifeform) to 1D8 years (for extensive modification of the genetic structure of a complex organism).

This skill is limited in exercisable skill level by the character's skill in Computer Science, Applications.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.41 Geochemistry

A successful use of this skill will enable the adventurer to determine, from a soil sample or from data gathered from flybys by telemetry drones whether or not a given small region on a planetary body contains (or may contain) a deposit of some valuable materials.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.42 Geology

The geologist in **OTHER SUNS** is a student of the planetology of terrestrial type worlds. His skill will enable him to predict earthquakes and the like, and to serve as a generalist to answer any questions related to the planetary characteristics of terrestrial planets.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.43 Geometry

This skill is the measure of the character's understanding of the areas of mathematics involved in euclidean geometry, differential geometry, and differential manifolds.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.44 Hide In Cover

This is the Adventurer's ability to conceal himself from view quickly and successfully behind any cover that might be present.

This is a 6% base stealth skill, and the training costs are as follows: 100/200/400/800/1200.

5.3.45 Hide Item

This is the Adventurer's ability to conceal small pocketable objects without detection by the casual observer.

This is a 6% base manipulation skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.46 History

This is the measure of the character's knowledge and understanding of the past events that have shaped Hegemonic society. It is a measure of the character's ability to recall the key fact that might, for example, identify an ancient artifact of some kind.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.47 Immunology

The immunologist is the variety of biologist or medical doctor whose specialty is the immune response system of the various known lifeforms of the Hegemony. He will be an expert in the field of allergies and their treatment. The unpleasant, and sometimes violent, reactions of some life forms to alien substances (for example, the unusual reactions that some humans have to bee stings) are this specialist's meat.

One in one hundred individuals has an allergic response to other of the intelligent life forms in the Hegemony. Similarly, one individual in one hundred will be incapacitated by some new alien protein on a newly discovered world. (Roll 1D100 in each case and if the result is 00, then the individual exhibits an allergic reaction). A successful use of this skill can identify and correct the problem.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.48 Intelligence

The intelligence operative is the expert in not being noticed by others — the expert in assuming a role and in being believed. The level of this skill may also be taken to be a measure of the character's ability to be the 'James Bond' type spy — and get away with it.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.49 Jumping

This is a measure of the Adventurer's ability to jump, both horizontally and vertically, and to clear obstacles during the course of the jump. It is also a measure of the Adventurer's ability to fall safely from a height.

A successful skill for a jump under 1 g conditions means that the adventurer has jumped and reached three meters without harm (either measured horizontally or vertically from the beginning of the jump to the farthest point reached by any part of his body). A successful jumping roll will also reduce falling damage by 3D6 (falling damage may not be reduced below zero as a result, however). Clean action rolls result in a jump of three and one half meters, critical rolls result in a jump of four meters or in reductions in falling damage by 3D8 and 4D6 respectively. A successful roll will also allow the Adventurer to select the first location to which falling damage is done. For further data on falling rules, see Chapter 14, Appendices.

Gravity levels below 1 g will increase the allowable distance for a jump, and gravity levels above 1 g will decrease the distance. As a quick approximation of the amount, allow 3/N meters jumped (where N is the strength of the gravity field in units of 1 g). In falls, reduce the damage done by that damage done in a fall of 3/N meters (N as above) and on clean action rolls and critical rolls increase the dice to the next higher die size or add one of the same die size respectively (so that 3D6 is replaced by 3D8 in a clean action, and 3D6 is replaced by 4D6). The die sizes in increasing order are: 1D2, 1D3, 1D4, 1D6, 1D8, 1D10, 1D12, 1D20.

This is a 24% base manipulation skill, and the training costs are as follows: 75/150/300/450/600.

5.3.50 Legal Semantics

This is the skill of reading legalese and translating it into terms understandable to the layman (read: the absolute idiot). It is the ability to recognize from the legal document all the immediate legal and social ramifications of same. And it is the ability to 'read the fine print' in a legal document so as to not be trapped by same. Successful use of this skill will also allow the character to create a document in legalese capable of baffling any poor witless laymen.

This is a 0% base knowledge skill, and the training costs are as follows: 50/100/250/500/800.

5.3.51 Linguistics

The linguist in **OTHER SUNS** is a master of the major known languages of the Hegemony. He may initially read, write, and speak one language per point of INT at a skill level equal to his skill as a linguist. Further, given any known language he may learn that language from any character with whom he shares a common language at the assured communication level (see Speak Other Languages) at a rate of 1D6 (in percentile points skill level) for each week that he makes a successful roll in his linguistics skill.

This is a 0% base knowledge skill, and the training costs are as follows: 150/350/650/1350/2000.

5.3.52 Listen

This is a measure of the Adventurer's ability to listen and interpret correctly what he hears. It is a measure of his ability to listen to the rustling in the bushes and tell whether it is a small predator passing by in the night or a guerilla fighter sneaking up on him.

This is a 30% base observation skill and the training costs are as follows: 50/100/250/400/550.

5.3.53 Lock Picking

This is the Adventurer's ability to open simple mechanical locks without the aid of the proper key. This skill may only be applied to mechanical lock mechanisms. Where a computer or microcomputer system is part of the lock control mechanism, a skill roll in Computer Science, Security Systems will be needed in order to bypass the computer control before the more common lock picking skill may be applied.

This is a 3% base manipulation skill, and the training costs are as follows: 150/350/650/1350/2000.

5.3.54 Map Making

This is the Adventurer's ability to make and read simple maps that he or someone else similarly skilled can read and interpret correctly at a later date to locate any particular spot. It is assumed that the Adventurer does not have access to either surveyor's tools or drafting tools at the time the map is drawn; a successful use of the skill will provide a map that can be followed, with a bit of skill and luck.

This is a 12% base manipulation skill and the training costs are as follows: 50/100/150/250/400.

5.3.55 Martial Arts

There are three distinct skills within the broad category of martial arts in **OTHER SUNS**.

5.3.55.1 DISARM

This skill will allow a character to disarm an opponent.

If an opponent fails his attack with a hand-to-hand impact weapon, and the martial artist makes a successful parry, the martial artist may attempt to disarm his opponent. If his disarm roll succeeds, roll an attack as per average of STR and DEX of martial artist (round fractions up) vs STR of opponent — if successful, opponent is disarmed. Only 1 Action Point is expended in a Disarm attempt (successful or not).

This is a 0% base parry skill, and the training costs are as follows: 250/550/1050/1600/2100.

5.3.55.2 EVADE

This is the skill of being where the melee blow, bullet, or blaster bolt isn't. It is the only skill that will allow a character to dodge a missile that he couldn't normally see coming.

A successful use of this skill will allow the martial artist to evade ONE incoming blow, resulting in no damage being taken by the martial artist. Critical hits graze — doing a random percentage of normal damage (roll D100) — unless the evade roll is a critical also, in which case again no damage is done. The skill must be employed before the player is told whether the blow (or bullet or blaster bolt) has hit or not, and the specific attack against which the martial artist is employing his evade skill must be specified in advance of the roll.

This is a 0% base dodge skill, and the training costs are as follows: 250/550/1050/1600/2100.

5.3.55.3 HAND-TO-HAND

This is the art of using one's body parts as effective offensive weapons. It allows the character to strike two hand or fist blows or two elbow blows (during the same action point) and kick as well, with a lesser delay than would normally be expected. The delays between attacks for a martial artist skilled in Hand-to-Hand are based solely upon the DEX of the martial artist and upon his reach (i.e. his LEN), not upon the hypothetical length of his natural weapons.

Damages for these body weapons are as follows:

Elbows	1D4
Hand/Fist	1D4+1
Kick	1D8+1
Knees	1D6

This skill also allows the Adventurer to parry ancient weapon or hand-to-hand attacks with his limbs without suffering full damage. Deduct the number of hit points in the limb used to parry from the damage done by an attack from an ancient melee weapon or struck in hand-to-hand combat, if the attack is successfully parried using this skill. Thus, if a martial artist employing the hand-to-hand skill to parry succeeds in parrying a sword blow for which 5 points of damage had been rolled, and the martial artist used a 4 hit point limb to parry the blow, only 1 point of damage would be done to the parrying limb (and had the parrying limb had 5 hit points, no damage would have been done to it in this instance).

This skill is a 0% base attack skill (used in the offensive mode) and a 0% base parry skill (used to block ancient melee weapon attacks and/or hand-to-hand attacks), and the training costs are as follows: 250/500/1000/1500/2000. The Attack and Parry components of this skill advance and are trained independently.

5.3.56 Medical Doctor

The medical skill is a species specific skill, applicable to half skill level to a species with closely related physiology.

Successful application of this skill will keep a character alive for one turn who would otherwise have died. Repeated uses of this skill will thus allow a doctor to keep an injured patient alive long enough to

reach surgical or other medical facilities.

Once an injured character has been taken to a place where medical facilities are available, the medical skill will allow the doctor to restore 2D6 damage in one location for each successful use of his skill. Each attempt at such restoration will take one hour, and a failed roll on a critically injured patient (i.e. one who would normally be dead at this point) results in the death of the patient if the doctor cannot roll half or less his normal skill level in a second roll. A fumbled medical skill roll results in a 2D6 attack vs CON of the patient (see Chapter 6, Psionics And The Use Of Will for rules regarding overcoming resistance). A fumbled roll by the doctor results in immediate death of the patient if the patient was critically injured.

Without medical facilities, a medical doctor may still use his skill as a replacement for the first aid skill for the species in question, with the exception that the penalty for a fumbled skill roll is only half as great as it would normally be for a failed first aid skill roll.

This is a 0% base knowledge skill, and the training costs are as follows: 150/250/550/1050/1600.

5.3.57 Meteorology

This skill measures the character's understanding of weather systems on both terrestrial worlds and jovian type gas giant planets. It is also a measure of the character's understanding of how to alter the weather system of a planet to conform with some desired state using the weather control equipment available in the Hegemony. Use of this skill will allow the character to predict the weather on any world, given that he has access to monitor data from weather satellites.

The exercisable skill level of this skill is limited to the character's skill in Analysis.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.58 Molecular Biology

This skill is as per the Genetics skill save that it is limited by the character's skill in Chemistry rather than Computer Science, Applications.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/800/1050.

5.3.59 Move Quietly

This is the Adventurer's ability to move without making a sound that could be heard by another being not using special sound detection equipment. If successful, the user of this skill makes no human-detectable sound; thus the adventurer cannot be detected by the successful use of the listening skill in this case (as there is no sound to be heard, let alone properly interpreted as resulting from the motion of an intruder).

This is a 9% base stealth skill and the training costs are as follows: 75/150/300/600/900.

5.3.60 Nuclear Physics

The nuclear physicist in **OTHER SUNS** is a student of subatomic particle physics as well as a student of the fission, fusion, and total conversion weapons and energy supply systems.

The exercisable skill level of this skill is limited to the character's skill as an Algebraist (see Algebraist earlier in this section).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.61 Oceanography

The oceanographer, in addition to being the oceangoing meteorologist and geologist, a student of the physics and chemistry of the seas, is a marine biologist.

The exercisable skill level of this skill is limited by the character's skill level in each of the following fields: (1) Biology (generalist), (2) Chemistry (generalist), (3) Computer Science, Applications, (4) Ecology, and (5) Physics (generalist).

This is a 0% base knowledge skill, and the training costs are as follows: 400/600/800/1000/1200.

5.3.62 Oratory

This is Adventurer's ability to convince others of the truth of his words and to move their emotions as he desires through the force of his words alone.

This is a 6% base persuasion skill and the training costs are as follows: 150/350/1000/1650/2650.

5.3.63 Paleontology

Paleontology is the branch of geology that deals with the study of prehistoric forms of life through the study of fossil plants and animals.

Successful application of his skill will find fossils (if present in the region) and a second successful application of his skill will then determine much (if not all) of the nature of the life form responsible for said fossil remains. (The precise amount of information that the referee gives out should be a proportional to both the skill level of the character and how well the player rolled on the skill application roll).

Fossil finding applications of this skill take 3D4 days — analysis of remains found should take 3D4 hours on critical rolls, 3D20 hours on non-critical successful rolls, per fossilized creatures. (Note: the maximum work day for scientists is assumed to be 12 hours out of 24).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.64 Pathology

The pathologist is a student of that area of medicine devoted to the study of the nature of diseases, their causes and symptoms, and especially the structural and functional changes caused by disease.

Successful application of this skill will allow the Adventurer to determine the cause of death of a member of a familiar species, or of a species similar to one with which he is familiar. A familiar species is one for which the Pathologist has a skill as medical doctor at 30% or higher. The pathologist may apply his skill to a species with which he is not familiar if that species is similar (by referee decision) to one for which his skill as a medical doctor is 50% or higher.

The Pathologist's skill will also allow him to detect a disease — and allow him to identify same (if it is one known to Hegemonic medical science), and to select the appropriate treatment (though if the treatment called for involves surgery, he must rely upon either his own medical doctor skill for that species, or he must brief a medical doctor for the species involved).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.65 Pharmacology

The Pharmacologist in **OTHER SUNS** is a student of the properties and the art of preparation of various drugs. (See the section on Drugs in Chapter 11, Hegemonic Technology for further details).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.66 Physics (Generalist)

This is the character's ability as a generalist in the area of physics. The solution to any problem not lying in any of the other subfields will be found through the generalist's knowledge.

This is the catch-all area for all the problems that do not easily fall into any of the other categories within the physics specialty, and is to be so treated by the referee. This skill may be used in place of any of the other physics science skills at one-quarter the skill level as physicist.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.67 Physical Anthropology

This is the character's ability to determine, based on physical artifacts of an existing civilization, the nature of the creatures that live in that civilization, the nature of the creatures that live in that civilization, and their probable culture. The higher the skill level, the more the character is able to extract in the way of useful information from a set of artifacts on a regular successful skill roll. On a critical skill roll, the character should receive virtually full information.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.68 Pick Pockets

This is the Adventurer's ability to pick another's pocket and escape detection.

This is a 6% base manipulation skill, and the training costs are as follows: 100/250/550/800/1050.

5.3.69 Piloting

This is the Adventurer's ability to control and maneuver spacecraft or aircraft in difficult situations (landing, docking, special maneuvers, etc.).

In combat, a successful piloting roll reduces an opponent's probability of successful attack on the piloted craft. For each 25% in skill (or fraction thereof) above 25%, reduce all opponents' chances of scoring a hit that melee round by five percentile points.

In normal, unhurried situations, where there are no distractions (such as bad weather in the case of a planetary landing, or combat in the case of a docking maneuver) a skill of 26% or better will guarantee a safely completed maneuver. As such maneuvers are without risk for pilots with 26% or better skill, the skill use does not count for skill improvement rolls after the expedition.

A failed skill roll in Piloting means that the desired maneuver was not carried out successfully. In the case of a landing, this means that the ship crashed — but no one was injured (though depending on precise circumstances, the referee may wish to assign some damage to the landing ship itself). A FUMBLE in a Piloting roll means that the pilot completely lost control of the craft for a brief instant. In the case of a fumble, the craft will be damaged (if the situation allows for such to have happened) and a second roll is made, and if the result is another fumble, all aboard must make (2 x LUC) as a percentage or die (serious crash) — those who are not killed take 4D10 END damage. If the second roll is not a fumble, all aboard will still take 4D10 END damage.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/800/1050.

5.3.70 Planetology (Generalist)

The planetologist (the generalist, that is) handles all the little geological/planetological problems that do not fit nicely into any of the other subfields of the general planetology study. He can handle problems dealing with both terrestrial AND jovian type worlds, however, unlike the geologist generalist who is limited to terrestrial type worlds in his problem solving.

The generalist may substitute his skill for any of the other specialties within the overall planetology specialty (geology, geochemistry, etc) at one-quarter his skill level.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.71 Private Inter-Systems Law

This is the area that covers what American law refers to as 'Private International Law'. It refers to the interactions between individuals who belong to/are under the jurisdiction of/owe duties to different societies. The conflicts here belong only to the individuals, and their respective societies have only the interest that their members not be taken advantage of. It is the balancing of the other areas of law between the two systems (who owes tax to whom, how is the contract resolved, etc.). This law will have great emphasis on merchant-pragmatics, since they are the one group most involved — and the strangest quirks will exist here. (Marriages under one system are valid and unchallengeable under another — polyandry and polygamy in America would be recognized for a Saudi, etc.). The greatest requirement here is knowledge of the business or practical requirements of the people involved, and an openness of mind greater than the norm.

In current American law, this would cover the areas of private international law, arbitration, nationality or immigration law (most of the above as they affect a given deal, from both legal systems, yet) and comparative Law.

This is a 0% base knowledge skill, and the skill level exercised in this skill may NOT be higher than the character's skill in Legal Semantics.

The training costs for this skill are as follows: 100/250/550/1050/1600.

5.3.72 Procedural Law

These are the people who practice determination of the law, and who resolve the controversies by operation of law. It is the study of the rules that govern the substantive laws — hence the actual study and practice of resolution of factual situations. The specialist determines how to decide what the rights, duties, obligations are, how they are to be shown to the people involved, and how they are to be enforced as well by society. Of all the areas, it may be the greatest art and the least trainable, for it is entirely independent of any factual setting but must be applied to all.

In modern American law, this specialty would cover the areas of

civil procedure, evidence, trial advocacy, administrative or bureaucratic law, all litigation, constitutional and source law, legislations' meanings, and public international law.

This is a 0% base knowledge skill, and the skill level exercised in this skill may NOT be higher than the character's skill in Legal Semantics.

The training costs for this skill are as follows: 100/250/550/1050/1600.

5.3.73 Psychology

This is the character's ability to quantitatively judge and analyze personal behavior and mental attitudes of an individual of any of the known species, and project likely actions of the individual under any given circumstances.

Thus, a psychologist who makes his skill roll, will be able to make predictions of the form 'If we do X, the odds are that Mr. A, being a member of thus and such a species who I will assume to be sane (for the moment) can be expected to do Y, Z, W, or T'. Of course, by the Harvard law of animal behavior (as applied to people), the subject might do something entirely outside the predicted range of behavior (the referee should keep such cases to an absolute minimum, however). Further, if the player rolls a critical on the skill roll, he should be given full and complete information regarding the possible responses (or mental state) of the subject.

This is also the character's ability to cure psychological trauma of various kinds — as well as diagnose their presence.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.74 Rapid Odds Calculation

This is the character's ability to quickly judge the true odds in any game of chance. A successful use of this skill will provide him with the proper actions to take in order that the odds favor him rather than the house or, if no such course of action exists in the game in question, provide him with the proper action to take to maximize his probable return.

This is a 9% base knowledge skill, and the training costs are as follows: 75/150/300/600/1200.

5.3.75 Read And Write L'Doran Universal

This is the basic reading and writing skill for the character in the Hegemony's 'Universal' language. For further information on treatment of languages, see Speak Other Languages skill later in this section.

This knowledge skill has a base of INT x 4 and the costs for training are as follows: 50/150/400/900/1350.

5.3.76 Read And Write Other Language

This is the basic ability of the character to read and write a language other than his mother tongue and other than the artificial 'Universal' language, L'Doran Universal.

This is a 0% base knowledge skill, and the training costs are as follows: 175/350/700/1400/2100.

5.3.77 Read And Write Own Language

This is the basic reading and writing skill for the native language of the character. For further information on treatment of languages, see Speak Other Languages later in this section.

This knowledge skill has a base of INT x 5, and the costs for training are as follows: 50/100/250/500/800.

5.3.78 Riding

A horse or any similar riding animal is a stupid and willful creature which will do its very best to remove anything placed upon its backside. Training such a beast to acquiesce to the presence of a rider is a long and drawn out affair, never completed and never completely successful.

Riding is the skill of persuading the dumb animal to do as the Adventurer wishes rather than as the animal wishes. Only secondarily is it the skill of remaining on the animal once the animal has been convinced to perform as desired.

Until the Adventurer's skill is 30% or greater, he must make a successful skill roll in order to force his mount to obey any command under any circumstances. Once his skill is 30% or greater, he need only make a successful skill roll in unusual situations (e.g. in a battle, a bad storm, or in the midst of a fire). Failure to make his skill roll when nec-

essary (under unusual circumstances for the 30%+ skill level character, under any and all circumstances for the 01-29% skill level character) results in the animal doing as it pleases (usually the exact opposite of what is desired).

Should the riding animal bolt and run or attempt to remove the rider in one way or another, the rider may attempt to quiet the animal (using his riding skill) after it has been determined that he has remained mounted on the animal. If the animal attempts to unseat its rider, a roll must be made of DEX x 5 or less on 1D100 in order to remain mounted.

This is a 0% base persuasion skill and the training costs are as follows: 50/150/350/500/650.



5.3.79 Robopsychology

This skill is the same as the psychology skill, except that it is applied to the artificial intelligences that exist in the Hegemonic society. The exercisable skill level is limited to the maximum of this skill and either Analysis or Computer Science, Artificial Intelligence.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.80 Running

A character may run two and one half times his melee movement rate, but he does so at the risk of expending END points (on a temporary basis). While running, a character must make his running skill roll every full turn or expend 1D6 END points.

In any turn spent running in which a clean action roll is made, there is a possibility of recovering 1 END point previously lost through running: if a roll on 1D100 is less than or equal to the WIL of the character, one point of END will be recovered. In any turn spent running in which a critical roll is made in the running skill, one point of END lost through running will be recovered on a roll of WIL x 5 or less on 1D100.

This is a 15% based manipulation skill, and the training costs are as follows: 125/250/500/1000/1500.

5.3.81 Sense Ambush

This is the ability of the Adventurer to detect a successfully set ambush before he passes the point of no return. A bungled (i.e. failed) attempt at setting an ambush does not require a successful use of this skill to spot.

This is a 9% base observation skill, and the training costs are as follows: 125/250/500/1000/1500.

5.3.82 Sensor And ECM Systems Operation

This is the character's ability to get the most out of the sensor and electronic counter measures equipment available to him. In the event of a successful skill roll increase the grade of sensor or ECM being employed by ONE for each 25% in skill (or fraction thereof) ABOVE 25% (see section on Sensors and ECM in the Ship Construction section in Chapter 10, Starships And FTL Travel for further details).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.83 Set Ambush

This is the Adventurer's ability to plan and execute an ambush.



Only one member of the group setting the ambush may apply this skill — the chance of success rests squarely upon the planning abilities of the group's tactical leader.

This is a 6% base stealth skill, and the training costs are as follows: 100/200/400/800/1600.

5.3.84 Skiing

This is the adventurer's ability to travel downhill or cross country at high speeds on two (or more) slender strips of wood without killing himself in the process.

At skill levels below 29%, any action on skis requires a successful use of the skill. At 30% skill level and higher, all simple actions are per-

formed automatically, and the skill roll need only be made to perform difficult feats. In any case, the skill level with ANY weapon for a character skiing is limited to his skiing ability.

This is a manipulation skill, and all species save the Altani have the skill at 6% base. Altani have skiing at a 30% base. The training costs are as follows: 50/150/350/500/650.

5.3.85 Sociodynamics

This is the character's ability to judge the actions of a society under given conditions through the application of mathematics to an understanding of intelligent life forms. Hari Seldon of Isaac Asimov's **FOUNDATION** series may be taken as the archetypal model of the

sociodynamicist.

A successful skill roll will gain the character answers to questions of the form, 'If the Humans occupy the worlds currently claimed by both them and the H'Reli, what are the four (or five) most likely consequences?' In this particular example, once the probable results were determined, their precise probabilities could then be determined by further repeated successful applications of the skill.

The exercisable skill level of this skill is limited by the character's skill in Analysis, Algebra, and Statistics and Probability Theory.

This skill is only applicable to large masses of individuals. It cannot be used to predict the actions of a single character.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.86 Sociology

This is the character's ability to judge the actions of a society under given conditions through the application of insight and an understanding of intelligent life forms rather than an application of mathematics.

Questions that a sociologist may ask must be more detailed, and more of the yes-no-maybe variety than those asked by the sociodynamicist. Our earlier example in sociodynamics, if asked by a sociologist, would become, 'if the Humans occupy the worlds currently claimed by both them and the H'Reli, would the H'Reli organize and go to war?' The answer would then either be yes, no, probably yes, probably no, or 'who knows' (answers of this last form are to be used sparingly or not at all unless the skill roll is failed).

This skill is only applicable to large masses of individuals, and cannot be used to predict the actions of a single character.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.87 Space Law

This is the character's understanding of the military and deep space regulations that govern Hegemonic exploratory and interstellar transport activities. A successful use of this skill will provide a character with information as to the legal way (if such exists) of accomplishing his desired ends.

This is a 0% base knowledge skill, and the training costs are as follows: 50/100/250/500/800.

5.3.88 Speak L'Doran Universal

This is the basic capability of the character to speak and understand the 'Universal' language of the L'Doran Hegemony.

This knowledge skill has a base of INT x 5, and the costs of training are as follows: 100/150/350/650/1000.

5.3.89 Speak Other Languages

This is the ability to communicate in a language other than the character's mother tongue and other than the artificial 'Universal' language, L'Doran Universal. This knowledge skill has a 0% base and the training costs in a particular language are as follows: 150/400/650/1350/2000.

The skill level in the language also dictates the degree of complexity of messages that the Adventurer can handle in this non-native language.

5.3.89.1 ABILITY GRADES

5.3.89.1.1 Grade 1

From 01-20%, the speaker is at Grade 1. He is able to communicate only extremely simple messages (e.g. 'No Kill I'). His command of grammar is poor to non-existent, and his accent will be abominable. His ability to understand messages more complicated than those he can formulate himself is virtually non-existent, and he is slow to translate any message.

5.3.89.1.2 Grade 2

From 21-40%, the speaker is at Grade 2. He is able to communicate in simple sentences, and understand somewhat more complicated sentences than he is quickly able to generate himself. His speech would have the complexity of a youngster's, and he will be able to communicate quite complex thoughts (though not perhaps, in the most direct or clever fashion). He still is not 'thinking' in the new language, but he is able to survive comfortably in an environment filled solely with speakers of the new language. He has some small command of the grammar of the new language, but his translations are still slow and painful. He may speak with a thick accent, though his speech should still be reasonably understandable.

5.3.89.1.3 Grade 3

From 41-60%, the speaker is at Grade 3. At this level, the speaker is able to speak the language as well as the average native, though he will still undoubtedly have an accent noticeable to any native speaker of the language. He has begun to 'think' in the new language, and is able to handle quite complicated conversations without significant difficulty. He is able to translate freely between his native language and the new language (where concepts involved are common to both languages) but he is by no means able to provide concurrent translation.

5.3.89.1.4 Grade 4

From 61-80%, the speaker is at Grade 4. At this level, the speaker is the equivalent of an educated adult native speaker of the language. He has a reasonably full command of the language and is only occasionally possessed of a noticeable accent (and even then, it is detectable only by a trained linguist or xenolinguist). He is capable of understanding and making himself understood clearly in the most complex and complicated of negotiations or debates.

5.3.89.1.5 Grade 5

From 81-100%, the speaker is at Grade 5. At this level, the speaker is indistinguishable in his speech patterns from a cultured and educated native speaker of the language. He will have an accent only if he wishes to retain one — he is quite capable at this skill level of fooling all save master linguists and xenolinguists as to his linguistic origins (and even these experts will be reduced by 50% in the probability of their detecting and recognizing his accent). He is capable of concurrent translation where the statements made are simple, and equivalent concepts exist in both languages. Given a few minutes delay, however, the speaker at this level is completely capable of translating to his native language statements expressing concepts not present in his native tongue.

5.3.89.1.6 Grade 6

From 101% on up, the speaker is at Grade 6. At this level, the speaker is capable of the concurrent translation of the most complex statements, finding suitable explanations for concepts not present in one language that are given (or assumed) in statements in the other language.

5.3.89.1.7 Affects on Mutual Comprehension

Mutual comprehension is possible when both speakers of a given language have the ability to speak the language at Grade 1 or above. However, the complexity of any message transmitted will be limited by the abilities of the speakers involved, and there is possibility for misunderstanding. And the level of communication complexity is limited by the grade of the lower grade speaker.

If one speaker is Grade 1, he will misunderstand any message above grade 1 in complexity, and where both speakers are of Grade 1, there is a 65% chance of misunderstanding even in the event that the message complexity is suitable for grade 1 communications. If the other speaker is Grade 2, the chance of misunderstanding is only 35% so long as the message complexity is restricted to grade 1. If the other speaker is Grade 3 or above, the chance of misunderstanding grade 1 messages is equal to the fumble chance of the Grade 1 speaker.

If the lower grade speaker is Grade 2, the probability of misunderstanding is equal to his fumble chance provided that the message is a straightforward one, or he is allowed time to translate it into his native language.

If the speakers are both of Grade 3 or above, the probability of a misunderstanding developing is equal to the fumble chance of the speaker with the lower skill level.

5.3.89.2 SIMILAR LANGUAGES

A speaker of one language may speak and understand a related, or similar language of the same language 'family' at half his skill level in the first language.

A referee should have language 'families' determined for his campaign, so he may decide whether a character from one culture can generally understand a speaker from another. For those wishing to set their campaigns in the Hegemony, descriptions of the various species' language families are given along with the species description in Chapter 9, Intelligent Species.

5.3.90 Speak Own Language

This is the character's ability to communicate in his 'mother tongue'. It is a knowledge skill with a base of INT x 6 and the training costs are as follows: 100/250/550/650/800.

5.3.91 Spot Cheating

This is the character's ability to detect the use of the Cheating skill. A successful use of the skill will indicate who is cheating, but not precisely how he is going about it — a critical roll means that the character knows exactly how the cheating is being carried out.

This is a 9% base observation skill, and the training costs for this skill are as follows: 50/100/350/600/850.

5.3.92 Spot Hidden

This is the Adventurer's ability to notice features that are hidden from obvious view (either intentionally or otherwise). Its applications range from identification of the variety of body armor an individual is wearing under his clothes to location of a false bottom in a suitcase in customs.

This is a 6% base observation skill and the training costs are as follows: 50/150/350/450/600.

5.3.93 Spot Trap

This is the Adventurer's ability to detect a trap (or its trigger) and the principal features thereof for mechanical traps without having to trigger the trap.

This is a 6% base observation skill with training costs as follows: 50/150/350/450/600.

5.3.94 Statistics And Probability Theory

Knowledge of statistics and probability provide insight into the determination of odds (in games of chance) and will enable the Adventurer to provide the tools needed by sociodynamicists and other specialists in order to do their jobs.

This combined area of study is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1650.

5.3.95 Streetwise

The streetwise skill provides a sort of a 'sixth sense' for trouble detection. It allows the character to 'smell' trouble coming his way before it happens when he is working the shady side of the street.

It also enables the character to move smoothly, efficiently and, more importantly, safely, through the underworld society that exists on every world.

It enables the character to spot the undercover policeman, the street hustler who is planning on setting him up as a sucker in a confidence job, and similar traps that abound in the world beyond the law.

Successful use of this skill will also allow the character to find people (and types of people) that he needs to find in the underworld. Is an expert forger needed to produce fake ship's papers? A successful use of Streetwise will find the forger — and another successful use will tell for sure if he is going to try a scam, and so on.

This is a 0% base special skill, and the training costs are as follows: 100/250/550/800/1050.

5.3.96 Swimming

This is the Adventurer's ability to move purposely through water (as opposed to simply floating on the surface). A member of any species except the Altani may float indefinitely without effort in calm water, so long as he does not panic. For any non-Altani, a roll at or under WIL x 10 on 1D100 (rolled once) means that the character did not panic. An Altani character must roll at or under WIL on 1D100 each melee round that he is in water deeper than his height or he will panic.

A non-Altani character who panics must make his swimming roll that melee round, or he will begin to drown. An Altani who panics will inhale water and take 1D6 hit points and 2D6 END damage to his chest that melee round.

A non-Altani who does not panic will float, and on a successful swimming roll may make progress towards shore or in any specified direction at half his normal melee movement speed — quadruped, flyer and other modifications to speed not applying. An Altani who does not panic and who makes his swimming roll will not begin to drown, but he must make his swimming roll a second time to make progress that round (at one-quarter of his normal melee movement speed). If an Altani who does not panic fails his swimming roll, he begins to drown.

Once the skill level has reached 26%, swimming under normal conditions does not require a successful skill roll for non-Altani (Altani must still make their skill roll each melee round to avoid drowning, regardless of the water conditions). A fumbled roll indicates that the character has begun to drown.

Further rules for drowning are described in Chapter 14, Appendices.

This is a manipulation skill, and non-Altani have this skill at a base of 24%. Altani have this skill at a 0% base. The training costs are as follows: 50/100/200/400/800.

5.3.97 Tax Law

The right of the group to levy on the individual. The costs of dealing with an organized society not your own. The price you pay for government. It is the most complex legal specialty and requires an INT of at least 15 before a character may select this area as a primary subfield.

In American law, currently, this would cover any governmental money-gathering.

This is a 0% base knowledge skill, and the skill level exercised in this skill may not be higher than the character's skill in legal semantics.

The training costs for this skill are as follows: 400/700/1000/1300/1600.

5.3.98 Tactics

In a ship-to-ship engagement, for each 25% in skill (or fraction thereof) above 25%, a successful roll in this skill will reduce all chances of opponents hitting the force commanded by 5% and improve all chances to hit by the force commanded by 5%. The skill roll may only be attempted once per melee round, and once successful, the effects continue for the remainder of the melee.

In a ground engagement, a successful application of this skill will allow the unit commander to increase his chances of a successful ambush or a successful sense ambush by 5% per 25% or fraction thereof above 25% skill level. Used in this fashion, only one attempt at the skill roll may be made per engagement.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.99 Topology

The topologist is the mathematician who, according to the tale, cannot tell the difference between a coffee cup and a donut (since one could theoretically be pushed into the shape of the other without tearing or cutting either object). In more mathematical terms, the topologist is a student of the properties of continuous functions on certain specially defined spaces.

Due to the mathematical nature of the universe as defined in **OTHER SUNS**, this particular branch of mathematics is of utmost importance in understanding the structure and origin of the cosmos.

Successful applications of this skill will enable characters to increase their understanding of the space in which they are forced to travel (the Jump space in which the topological — the shape — properties differ dramatically from what is commonly referred to as 'the real world' and in which effective faster than light travel is possible).

This skill serves as a limiting factor in the exercisable skill level of the character in Cosmology.

This is a 0% knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.100 Toxicology

A successful application of this skill will allow the toxicologist to identify any known quick acting poison immediately from external symptoms, and any other poisons from a blood or lymph sample or from medical telemetry data taken from the victim. A second application will allow the toxicologist to treat 1D6 poison damage per 25% or fraction thereof in skill level. When the poison is already known, the first successful application of the skill will allow the toxicologist to treat the poison.

In the event that the poison is a previously unknown one, or the first skill roll is failed (the one necessary for identification of the poison) a second skill roll will, if successful, still allow some treatment to take place. In this case, a successful skill roll will result in treatment of 1D4 poison damage per 25% in skill (rounding fractions down!).

This skill may be applied for the purpose of treating damage only once per week per victim per individual case of poisoning. Thus, though the toxicologist might not be able to retreat an old poison problem immediately, he would still be able to treat any new poisoning problems encountered by the same individual. This skill may be applied for the purpose of identifying the poison once per day per victim per individual case of poisoning.

This is a 0% knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.101 Tracking

This is the Adventurer's ability to find, recognize, and or follow an animal or other track through normal terrain or brush. In order for this skill to be useful there must, of course, be tracks available to be followed.

This is a 6% base observation skill, and the training costs are as follows: 50/100/200/400/600.

5.3.102 Trap Set/Disarm

This is the Adventurer's ability to set and disarm simple mechanical traps. A success results in the trap being set or disarmed without activating the trap. A failure in the skill roll causes a trap that is being disarmed to activate, but not catch the Adventurer (of course, if it is an explosive trap, and he is caught within the explosive range of the detonating bomb, he will suffer full normal damage). If the roll in disarming or setting a trap is a fumble, then the Adventurer is caught in the trap, or in the case of an explosive trap, he will be directly adjacent to it when it explodes.

This is a 6% base manipulation skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.103 Vehicular Operations

This is the Adventurer's ability to control and maneuver simple ground vehicles, hovercraft, etc. It is otherwise treated as per the Piloting skill earlier in this section.

This is a 15% base manipulation skill, and the training costs are as follows: 50/150/350/500/650.

5.3.104 Weapon Systems Operation

This is the character's ability to control ship based weapon systems and to hit a desired target with same.

His base chance of hitting a moving target is equal to his skill in this area, and will be modified by circumstances of the battle (attacking ship maneuver, defending ship maneuver, etc).

The number of weapons pods that the operator can control is equal to his skill level divided by 30, rounding fractions up (thus with a 29% skill he could control one unit, with 31-60% he could control two units, and so on).

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.105 Xenobiology

The xenobiologist is an expert in weird and unusual lifeforms. He is, so to speak, the expert at the quick analysis of the random new creature that has decided to try to eat the airlock mechanism. Successful use of this skill results in disclosure of whatever cute trick/trap the referee has laid for the players in the form of a new beast. This skill may also be used to ferret out any possible commercial uses of a new lifeform.

This is a 0% base knowledge skill, and the training costs are as follows: 100/250/550/1050/1600.

5.3.106 Xenolinguistics

The Xenolinguist is not so much a master of the known languages as he is an expert in the art of learning totally new languages.

The xenolinguist does not need to have a common language with assured communication to do his job. He is able to learn the fundamentals of a new language at a rate of 1D10 in percentile points per successful roll (rolls allowed at one day intervals) for the first 15 days that he is exposed to willing teachers of the language. After the first fifteen days, if there is assured communication level in the new language, he learns from then on at the same rate as the linguist.

From simply listening in on communications between other intelligences in an unknown language he will learn a new language at a rate of 1D6 in percentile points per successful roll (allowed once per week).

This is a 0% base observation skill, and the training costs are as follows: 150/350/1000/1650/2650.

5.3.107 Xenopsychology

The xenopsychologist functions as per the psychologist, save that he must make a skill roll in his specialty in order to determine if he is able to understand the new species he has just encountered sufficiently well to apply the behavior prediction function of his skill.

He may not apply this skill to attempt to cure psychological trauma in a member of a new species until he has applied his skill successfully to (1) determine the basic nature of the species, and (2) diagnose the psychological problem correctly and (3) determine the correct course of treatment (which is not the same as carrying out that treatment). Needless to say, such actions may not be carried out successfully unless the character has had sufficient exposure to sane, non-neurotic members of the species to form a sound base for judgement (precisely how many individuals this constitutes is up to the referee).

This is a 0% base observation skill, and the training costs are as follows: 150/350/1000/1650/2650.

6. Psionics and the Use of Will

6.1 THE USE OF WILL

WIL supplies power for the use of the psionic talents. If a character with a WIL of 14 uses 1 point of WIL to power a talent, his WIL becomes 13 at the precise action point in which he uses his talent. WIL so expended is recovered at a rate of 1 point per hour.

6.2 TIMING THE ATTACK

The time required to employ a psionic talent is a function of the DEX of the attacker and the number of points of WIL and/or END expended employing the talent. Action point delays are as follows:

DEX	WIL Expended	END Expended	Modifier
27+	0	0	+0 Action Points
21-26	1	1-5	+1 Action Points
15-20	2	6-10	+2 Action Points
09-14	3	11-15	+3 Action Points
01-08	Each added +1	Each added +5	+1 Action Points

Thus if a character with DEX 13 expends 6 points of WIL and 1 point of END in a psionic attack the action point delay would be ten action points (3 points for DEX, 6 for WIL expended, and 1 for END expended).

6.3 DID IT WORK?

Healing talents, or talents applied against inanimate objects, do not need to overcome any resistance on the part of the subject, and will always work if the skill roll is made.

In order for an attack or psionic talent to work against a resisting opponent, the WIL of the attacker must overcome the WIL of the target. If a 1D20 roll is equal to or less than (WIL of Attacker) - (WIL of Defender) + 10, then the WIL of the target is overcome; however, the WIL of the target is always overcome on a roll of 1 and is never overcome on a roll of 20.

This same technique is used to resolve attacks versus other characteristics - if a 1D20 roll is equal to or less than (Strength of Attack) - (Characteristic being attacked) + 10, then the resistance of the target's characteristic is overcome.

6.4 INCREASING WIL

WIL can only be increased with great difficulty through training. More commonly, an Adventurer will develop greater force of WIL through surviving stressful situations while on an expedition. In any expedition in which the Adventurer's WIL overcomes the WIL of another, successfully resists being overcome by another, or in which the Adventurer was in a life threatening situation and was required to make a luck roll in order to survive (and did so), there is a possibility of im-

provement in WIL.

In order to improve WIL through experience, a player must roll at or under

$$5 \times (\text{Species Maximum WIL} - \text{Current WIL}) + N + M + L$$

on 1D100 where N is the number of times that the character's WIL successfully resisted the WIL of another character in a psionic attack, M is the number of times that the character's WIL overcame the resistance of another character's WIL in a psionic attack, and L is the number of successful LUC rolls made in life threatening situations. WIL gain rolls are only made after the expedition is over. If WIL improves, the amount of increase is determined by a 1D20 roll as follows:

1D20 roll	Number of points of WIL increase
1	4
2-3	3
4-6	2
7-20	1

6.5 TELEPATHY

Any character with a TSC of 1 or greater is telepathic. Telepathy may be used in four ways: (1) to communicate with another creature, (2) to probe surface thoughts of another character, (3) to probe the deeply buried memories and thoughts of another character, and (4) to launch a telepathic attack against another character. The maximum range for telepathy in either the probes (uses 2 and 3) or telepathic attack (use 4) is $10 \times (\text{TSC of character})$ in meters.

For simple communicative telepathy the success chance is $(\text{TSC of Transmitter} + \text{TSC of Receiver}) \times 5\%$. Resistance need not be overcome in this mode, so TSC cannot improve through use of this mode of telepathy. Though a character with TSC of 0 cannot transmit telepathic messages, he can still receive them.

To succeed in a telepathic probe, a player must roll at or under $(\text{TSC} \times 3) - 57$ on 1D100. If the character is attempting to extract information from an unwilling subject this chance is reduced by the TPR of the target of the telepathic probe. If the D100 roll is less than or equal to $(\text{TSC} \times 3) - 57$, but is greater than $(\text{TSC} \times 3) - 57 - (\text{TPR of Target})$ then the probe fails, and the target earns a chance to improve his TPR or increases his chance for same. If the D100 roll is less than or equal to $(\text{TSC} \times 3) - 57 - (\text{TPR of Target})$, then the probe succeeds, and information is gained. Critical and fumble chances are based on the basic success chance as modified by the TPR of the target. A critical hit results in gaining full information, a fumble results in loss of 1D4+1 points of END by the attacker.

To launch a telepathic attack requires the temporary expenditure of 1 point of END. The initial success probability is the same as per telepathic probes. If a fumble is made, the attacker must roll at or under TSC on D100 or take a "backblast" resulting in temporary loss of 4D6 END points (if he rolls at or under TSC, he only takes a temporary 1D6 END loss). If a critical roll is made, the target will take temporary END damage equal to $(4D6 + 2 + 0.2 \times (\text{TSC of Attacker} - \text{TPR of Target}))$, rounding fractions up. If the attack roll is made but it is not a critical, a WIL vs WIL attack is made — if unsuccessful, the target takes no damage, but if successful, the target takes temporary END damage of $(2D6 + 1 + (0.1 \times (\text{TSC of Attacker} - \text{TPR of Defender}))$, rounding fractions up.

6.5.1 Increasing TSC And TPR

If the character makes a successful use of TSC in modes 2, 3 or 4 described above there is a chance of increase in his TSC. With a successful resistance by the character to any of these uses of telepathy due to his TPR, there is a possibility of increase for that characteristic. A roll of less than or equal to $(\text{INT of character}) + (\text{number of successful uses of the characteristic})$ on 1D100 means that the characteristic increases. The amount of TSC and TPR increases are determined as per WIL increases.

6.6 REQUIREMENTS FOR THE USE OF WILL

To activate WIL for any use other than telepathic combat requires that a character be exposed to others with activated will. Once WIL has been activated, individual psionic talents may be activated and, once activated, they advance as per other skills. The four different categories of psionic talent are as follows: (1) Control of Self, (2) Empathic Healing, (3) Awareness, (4) Telekinesis.

An attempt at activation of WIL may be made once per forty weeks of exposure to WIL users or once per ten weeks of instruction by a master. A master is any individual with an activated WIL and one of the four psionic talents at the 90% skill level or higher. To activate WIL (or one of the individual talents) the player must roll WIL or less on

1D100. Talents may be activated only after WIL has been activated. A failed attempt at activating WIL or one of the psionic talents results in a temporary loss of 2D6-1 points of WIL. If a failed attempt results in WIL being reduced to below zero, the character dies (and no amount of medical assistance can revive him!).

6.7 THE USE OF THE TALENTS

Once activated, a psionic talent advances as per any other skill. The base skill level for all talents (once activated) is the normal WIL of the character.

The base range of application of these skills is as follows: Range (in meters) = $(\text{Normal Skill Level}) \times (\text{Character's WIL})$. Thus with a 50% skill level and a normal WIL of 14, a character's basic range with a talent would be 7 meters.

Both the basic range and the skill percentage can be temporarily increased through the expenditure of additional points of WIL. The added cost is $(\text{RM}) \times (\text{SM}) - 1$ points of WIL, where RM and SM are defined as follows: For normal range, $\text{RM} = 1$; for double range, $\text{RM} = 2$; for triple range, $\text{RM} = 3$; for N times basic range, $\text{RM} = N$; for normal skill percentage, $\text{SM} = 1$; for double skill percentage, $\text{SM} = 2$; for triple skill percentage, $\text{SM} = 3$; and for N times basic skill percentage, $\text{SM} = N$. Thus to temporarily double the normal range and increase the skill percentage by a factor of three would require the temporary expenditure of $(2 \times 3) - 1 = 5$ points of will, above and beyond any will costs normally required to use the talent.

If additional will is used to augment the normal skill percentage, the base range does not increase, as the base range depends only upon the character's base percentage in the skill. And a successful use of one of the psionic talents in a stress situation does not count towards improvement through experience if the skill percentage is increased above 90% through use of additional points of WIL.

The augmentation effects last for 5 turns (ten minutes).

6.8 TALENT DESCRIPTIONS

6.8.1 Awareness

This skill functions as clairaudience, clairvoyance, and as a replacement for all observation skills. That is, within the range of effect of the skill, the character will get a second roll on all pertinent observation skills (sense ambush, spot hidden, etc.) as well as being able to see everything within his range (even in conditions of complete darkness). Use of this skill at base range and skill level does not require any expenditure of WIL or END.

6.8.2 Control Of Self

This skill, applied to the character only, allows neutralization of all END or related nervous system damage. The character may also prevent or recover from shock through use of this skill. Finally, the skill may be used to prevent Jump Shocks (described in Chapter 10, Starships And FTL Travel).

6.8.3 Empathic Healing

A successful use of this skill allows the character to heal physical damage done to either himself or someone else. Healing N points of damage in one hit location requires the healer to expend N points of WIL and $2 \times N$ points of END. Two points of healing applied at one time in this manner will stop bleeding (external and internal) in any one location. Eight points of healing applied at one time in this manner will rejoin a severed limb or restore a maimed limb to the point that it will heal, on its own, to a useable state. In addition, the healer may transfer END points to another character at a temporary cost of 2 points of END for each 1 point added to the other character's END (this transfer cannot be used to increase the END of the target above the target's normal END).

6.8.4 Telekinesis

This skill allows the application of force at a distance. One successful skill roll will allow for an application of force for one melee round (12 seconds) equal to that required to suspend a mass of X kilograms against an acceleration of 1 g (980 cm per second per second), where X is given by the following formula: $(\text{Normal WIL}/10) \times ((\text{WIL Expended}) + 1) \times ((\text{END Expended}) + 1) \times (\text{Base Skill level})$. Thus a character expending zero points of WIL and three points of END with a basic skill level (unaugmented) of 30% and a normal WIL of 15 would be able to suspend a mass of $1.5 \times 1 \times 4 \times 0.3 = 1.8$ kilograms for 12 seconds in a 1 g field (or apply that force for 12 seconds to any other action) if he

made his skill roll.

In order to apply TK to cause direct damage to an individual (as opposed to using it to throw a rock at him) the attacker must make a successful WIL vs WIL attack (and if he fails, no damage is done) as well as make a successful skill roll. If the skill roll and WIL vs WIL attack are both successful, then 1DM damage will be done, where M is the largest integer less than or equal to (Normal WIL of Attacker) x (Skill level of Attacker). In our last example, as $15 \times 0.30 = 4.5$, the character will do 1D4 damage to a location specified by the attacker. Equal END damage will also be done in such an attack (though if the attacker wishes, all damage may be done in the form of END damage – which would result in 2D4 END damage and no hit point damage in our example, barring negative END results).

6.8.5 Training Costs For The Talents

To activate WIL: 2000 smu.

To activate a given skill category: 400 smu.

To train in any of the skills:

	00-25	26-50	51-75	76-100	101+
Awareness	125	250	500	750	1000
Control of Self	100	200	400	600	800
Empathic Healing	175	350	700	1400	2100
Telekinesis	150	300	600	1200	1800

6.9 OTHER NOTES ON THE TALENTS

Psionic talents other than telepathy are extremely rare in the Hegemony. There is no discrimination against psionically talented individuals, but they are so few and far between that it should be made extremely difficult for anyone (either Adventurer or Non-Player Character) to find a teacher.

The primary source of psionic training is to be found on Felicity, a world in the Commonality of Man (see Chapter 14, Appendices, for further information on Felicity).

7. Making a Living

7.1 THE MILITARY

7.1.1 Background

The Arms of the Hegemony are direct descendants of the Conquest Forces of the Suzrainty of Han, the Altani government during the Imperial phase of the Second Expansion. Holdovers from this Imperial period survive to the current date. The most important of these holdovers is the structure of the military forces of the Hegemony, and the ranking system thereof.

7.1.2 The Hegemonic Military Rank System

Hegemonic rank numbers are equivalent to US Navy ranks as follows:

Hegemonic Rank	Corresponding US Navy rank
00-09	Seaman Recruit
10-19	Seaman Apprentice
20-29	Seaman
30-39	Petty Officer, 3rd Class
40-49	Petty Officer, 2nd Class
50-59	Petty Officer, 1st Class
60-69	Chief Petty Officer
70-79	Senior Chief Petty Officer
80-89	Master Chief Petty Officer
90-99	Ensign
100-109	Lieutenant (Junior Grade)
110-119	Lieutenant
120-129	Lieutenant Commander
130-139	Commander
140-159	Captain
160-179	Rear Admiral (Junior Grade) aka Commodore
180-199	Rear Admiral
200-229	Vice Admiral
230-259	Admiral
260-263	Fleet Admiral

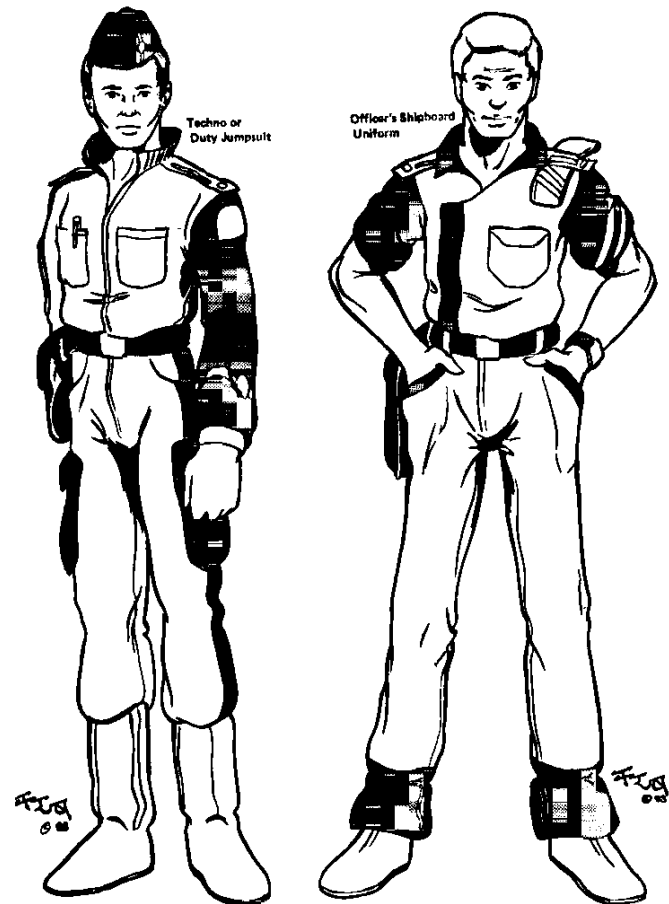
The rank name for a given rank number is derived by adding appropriate suffixes and prefix to stems given below such that the resultant rank adds sum to the proper rank.

The military forces of the L'Doran Hegemony are made up of five Arms:

(1) **Paratemporal Arm:** is responsible for all time and cross-time travel. In size and prestige, it corresponds to the Astronautics Corps in the United States during the mid to late 1960s. Assignment to this Arm guarantees rapid advancement and future success. Only the OverGovernment has access to the few existing time-ships.

(2) **Star Arm:** is responsible for all interstellar exploration and military action. It is divided into three quasi-independent Branches:

(2A) The **ENFORCMENT BRANCH** of the Star Arm is the com-



bat and police force of the OverGovernment Fleet. It is the branch that must bear the brunt in any prolonged naval action – it is the source for most (though not all) of the front line Naval forces in any police action or war.

(2B) The **SCIENCE BRANCH** of the Star Arm is home for all Star Arm scientists involved in research or survey work for the OverGovernment. Its personnel are all granted commissions (though they are seldom line – i.e. command – officers).

(2C) The **SURVEY BRANCH** of the Star Arm is home for the explorers of the OverGovernment Fleet. The men and ships of the Survey Branch explore the far frontiers of the Hegemony (and as pioneering often means finding new and interesting ways to die, this branch is not one for cowards).

Prefix:	(none)	- add 16 steps in rank
	Mil	- add 8 steps in rank
	Sul	- add 0 steps in rank
Stems:	Questor	- add 240 steps in rank
	Quaron	- add 216 steps in rank
	Quantor	- add 192 steps in rank
	Komdar	- add 168 steps in rank
	Dihad	- add 144 steps in rank
	Pentar	- add 120 steps in rank
	ComRichtor	- add 96 steps in rank
	Korant	- add 72 steps in rank
	Trinor	- add 48 steps in rank
	Binar	- add 24 steps in rank
	Inon	- add 0 steps in rank
Suffix1:	ob	- add 4 steps in rank
	(none)	- add 0 steps in rank
Suffix2:	teron	- add 2 steps in rank
	(none)	- add 0 steps in rank
Suffix3:	ir	- add 1 step in rank
	(none)	- add 0 steps in rank

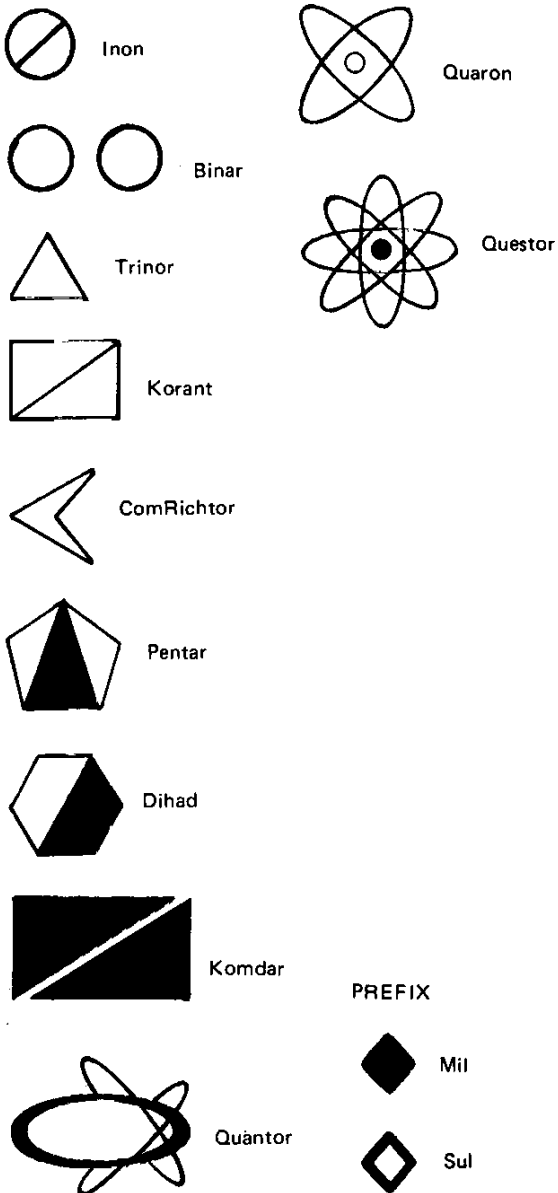
The final rank name will be of the form (Prefix) (Stem) (Suffix1) (suffix2) (Suffix3).

For example, an individual with rank 131 would have rank name:

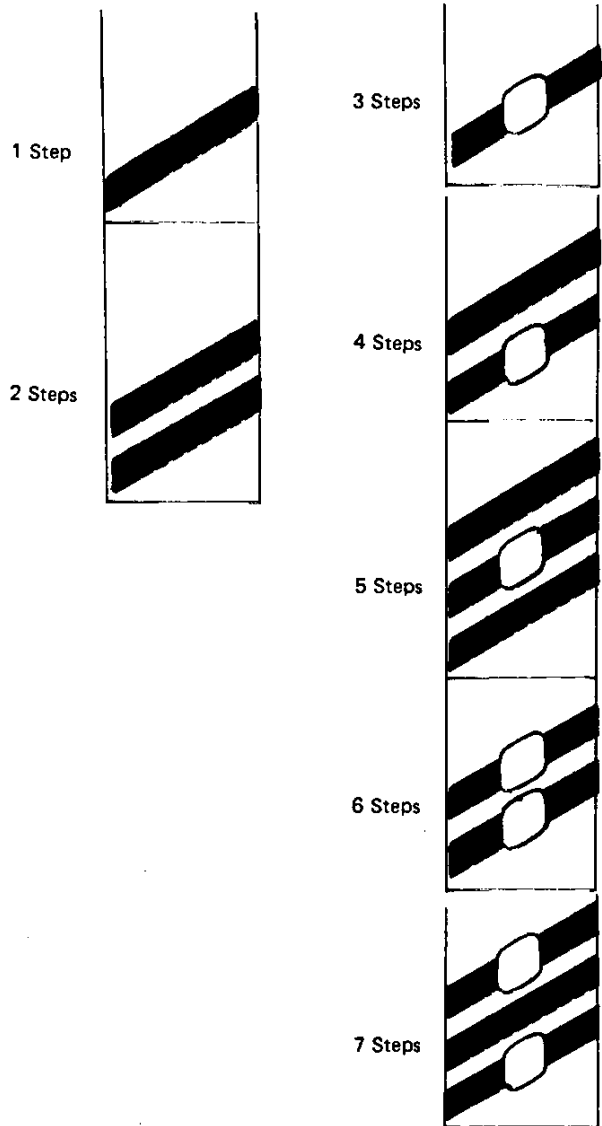
Prefix	= Mil	(add 8 steps)
Stem	= Pentar	(add 120 steps)
Suffix1	= (none)	(add 0 steps)
Suffix2	= teron	(add 2 steps)
Suffix3	= ir	(add 1 step)

= MilPentarteronir (rank 8+120+2+1=131).

STEMS



SUFFIX



(3) **Air Arm**: is the equivalent of the Coast Guard of the local space about worlds of the Hegemony. Air Arm ships differ from Star Arm only in that they are not typically capable of FTL travel.

(4) **Ground Arm**: is the Queen of the services — the Poor Bloody Infantry. When some local system government needs to be 'chastised' (as opposed to annihilated), it is the duty of this Arm to do the job.

(5) **Support Arm**: is pretty much anyone not in one of the other Arms who is still part of the military. It is the poor relation of all of the other Arms — and its members are not particularly well thought of by members of the other Arms (most especially by members of the Enforcement Branch of the Star Arm).

Each of the major subgovernments within the OverGovernment structure maintains its own Arms, with its own ranking systems, insignia, and internal regulatory bodies. However, they maintain the same standards within their Arms regarding the '16 crash landings' (discussed later in this chapter) and military regulations in general. Thus, though historical accident has saddled the OverGovernment Grand Fleets (those Arms maintained and controlled by the OverGovernment of the Hegemony directly, rather than through the quasi-independent subgovernments) with what might appear to be a cumbersome and/or unwieldy rank nomenclature, none of the individual Subgovernmental Arms have ever been particularly bothered by it.

7.1.3 Leave Time And Pay Rates In The Military

Leave time is accumulated at a rate of 1 day of leave time per 2 days of duty time in space or per 21 days of planet based duty. Subject to the needs of the Fleet, service personnel may take leave time as desired.

The pay of an officer of enlisted member of one of the Arms is a function both of the Arm, and the rank number of the individual. The base pay rates are as follows:

Arm	Pay Rate (smu/week)
Paratemporal	96 + (1.8 x rank number)
Star	86 + (1.5 x rank number)
Air	80 + (1.3 x rank number)
Ground	78 + (1.2 x rank number)
Support	76 + (1.1 x rank number)

Uniforms, room and board, and all training costs are supplied by the OverGovernment. In addition, military personnel may make use of available interstellar military transport free of charge. Thus the above pay rates indicate the available spending money of the character (there is no Hegemonic income tax and local governments are not allowed to tax income of Hegemonic military personnel).

Base pay rates also provide relative rankings for individuals in different Arms. For example, a rank 100 Star Arm officer (base pay of 236 smu/week) is actually superior in rank to a rank 120 Ground Arm officer (base pay of 222 smu/week). In other words, a Star Arm 1st Lieutenant outranks a Ground Arm Major — and what is more important, they both know it!

In addition to this base pay rate, any individual may qualify for proficiency pay (a 10% bonus) if his skill level in the primary subfield of his specialization is 90% or higher. Further, any member of the armed forces will receive space pay (a 10% bonus) for any time spent in the line of duty in interstellar space or beyond explored Hegemonic space.

Scientists with skill levels in the 100+ range may opt for research positions at ground or planetary orbital installations while still drawing full space pay. Or they may take teaching positions at military academies at either their normal pay rate, or at 1.21 times the institutional instructor's pay, whichever is higher. (Institutional instructor's pay rates, are discussed in the section on civilian life later in this chapter).

7.1.4 Promotions

Every year (or every six months for command personnel — ship commanders and their executive officers) all personnel stand for promotion.

The basic chance of promotion for a character is $[(100 - (\text{current rank}) + (\text{command skill}))]$. Thus, for example, an officer with numerical rank 112 (roughly equivalent to a US Navy full lieutenant) with a command skill level of 47% would have a basic chance of $100 - 112 + 47 = 35\%$ chance of promotion. A successful promotion roll results in an increase of 1D4 steps in rank for the character.

When promoted, a character's command skill is reduced by two percentile points for each numerical rank he is promoted (down to a minimum of 0). Thus if the rank of the character in the preceding example is increased by 3, his command skill would decrease by $2 \times 3 = 6$ percentile points to 41%.

The basic chance of promotion may be altered by a character's commanding officer. If the CO successfully exercises his Administration skill, this basic chance may either be increased by 20% or decreased by

1% (see Administration skill description in Chapter 5 for more details).

In addition, the chance of promotion may be altered by awards or decorations received.

7.1.5 Awards And Decorations

In recognition of actions of valor above and beyond the call of duty, the Admiralty may grant an award. But even in cases of truly heroic behavior an individual may apparently be ignored by the High Lords of the Admiralty.

Space Combat Ribbon (black field, three vertical white bars at each end of the ribbon): The sole necessary qualification for this award is that the character be involved in a space action in which missiles or beam weapons are fired by hostiles. After the first award, further awards are signified by silver diamonds added to the ribbon. Either this or the ground combat ribbon is a necessary award for any officer to rise above rank 110 in the Enforcement Branch.

Ground Combat Ribbon (brown field, two vertical white bars at each end of the ribbon): As per the space combat ribbon, save that the recipient must have been involved in a ground combat. Either this or the space combat ribbon is a necessary award for any officer to rise above rank 110 in the Enforcement Branch.

Order of Merit (the ribbon has a blue field with one vertical red bar at each end of the ribbon): This decoration is awarded for heroic or meritorious achievement by the recipient. It may be granted only upon recommendation by a command rank officer (a ship commander, his executive officer or above, or equivalent to company commander rank for Ground Arm) and a successful Administration roll is necessary from the recommending officer together with a luck roll (LUC x 5 or less on 1D100) on the part of the prospective recipient in order for the award to be granted. Individuals who are so decorated have their promotion chances increased by ten percentile points for the next four promotion periods. Repeated awards of this decoration are not uncommon. After the first award, further awards are signified by the addition of silver diamonds to the ribbon (one for each additional award of the decoration).

Order of Gallantry (the ribbon has a green field with one vertical blue bar at each end of the ribbon): This decoration is awarded for gallantry in action by the recipient. It may only be granted upon recommendation by a command rank officer (as per the Order of Merit). An Administration roll is necessary by the recommending officer at half his normal skill level together with a luck roll (LUC x 3 or less on 1D100) on the part of the prospective recipient in order for the award to be granted. Individuals who fail to qualify for the Order of Gallantry due to a failure on the luck roll, may reroll the luck roll in order to qualify for the Order of Merit. Individuals who receive the Order of Gallantry have their promotion chances increased by twenty-five percentile points for the next six promotion periods (and they will be reviewed for promotion at 4 month intervals if command officers, or at 8 month intervals otherwise). Repeated awards of this decoration are somewhat uncommon, though not completely unheard of. After the first award, further awards are signified by the addition of silver diamonds to the ribbon (one for each additional award of the decoration).

Medal of Honor (the ribbon has a green field with five blood red stars in a horizontal line across the ribbon): This decoration is granted for gallantry at the risk of life and above and beyond the call of duty. It is very seldom granted, and the award of this decoration is, most typically, posthumous (after death). The recommending officer must make a critical roll in his Administration skill, and the prospective recipient must roll his LUC score as a percentage in order for this award to be granted. Prospective recipients who fail their luck roll (but for whom the administration critical is rolled) will be awarded the Order of Gallantry instead. Recipients of this award are typically offered commissions (if enlisted grade) or promoted by 16 steps in rank if already an officer. The probability that a surviving character will FAIL a promotion is permanently cut in half if that character has been awarded the Medal of Honor. In addition, the recipient of this award (if still alive) will be considered for promotion at half the regular interval for the remainder of his service career. This decoration is never awarded twice to the same individual.

Other decorations exist, but they are typically on the order of good conduct ribbons or proficiency awards in various ship board and ground oriented skills. They are considered to be beneath notice by virtually all the officers and enlisted men of the Arms (though no one will turn down such decorations, they are not sought after). In addition, these other decorations will not affect the career of a serviceman as will the above described awards.

7.1.6 Military Regulations

The following is a list of the so-called '16 crash landings' (i.e., the 16 automatic court martial offenses) in the Hegemonic Armed Services:

- (1) Violation of OverGovernment rulings regarding the ownership or trading in intelligent life-forms (slave trading carries a mandatory death penalty, except where carried out for the express purpose of freeing said slaves; killing a purchased slave carries a mandatory penalty of death by slow torture);
- (2) Giving aid and comfort to the enemy in time of war (military tribunal takes precedence over any civilian court in such cases of treason);
- (3) Desertion (in the face of the enemy or otherwise);
- (4) Pusillanimous conduct in the face of the enemy in time of war;
- (5) Negligence that results in the death or serious injury of a fellow serviceman;
- (6) Voluntarily rendering oneself unfit for duty through the use of intoxicants, stimulants, narcotics, or other drugs, where such use served no valid medical function;
- (7) Striking a superior, save in the direct line of duty;
- (8) Violation of direct orders from a legitimate authority;
- (9) Violation of any of the Articles of War;
- (10) Violation of Quarantine of a world inhabited by pre-spaceflight intelligences, under any circumstances save on direct orders from the Chief of Naval Operations (this crime carries a mandatory minimum sentence of personality erasure!);
- (11) Being Away Without Official Leave during a declared military emergency;
- (12) Commission of any act deemed a felony by civilian OverGovernment courts (military tribunal shall take precedence over civilian court for trial);
- (13) Refusal to seek psychiatric treatment at first indication of xenophobic psychosis or neurosis;
- (14) Any act of sabotage;
- (15) Any act of insubordination that results in a serious threat to the survival of at least one member of the Armed Services;
- (16) Mutiny;

Commissioned and non-commissioned officers will face court martial for any of the following actions:

- (1) Failure to prevent a subordinate under the officer's direct authority from violating any of the Articles of War;
- (2) Failure to prevent a subordinate under the officer's direct authority from unauthorized violation of Quarantine of a world inhabited by pre-spaceflight intelligences;

In addition, commissioned officers in command positions will be court martialed under the following conditions:

- (1) Loss of unit commanded, where said loss could have been avoided by reasonable use of foresight (i.e., based on the data then available to the unit commander, the course of action taken could have been reasonably expected to result in loss of the unit, and a viable alternative course of action existed and could reasonably have been expected to have been discovered). Obedience to commands from higher authority is not an adequate defense in cases of this kind.
- (2) Loss of personnel while on assignment where said loss could have been avoided by reasonable use of foresight (i.e., based on the data then available to the unit commander, the course of action taken could have been expected to result in the loss of personnel, and a viable alternative course of action existed and could reasonably have been expected to have been discovered). Obedience to commands from higher authority is not an adequate defense in cases of this kind.

7.1.7 Ships And Their Commanders In The Star Arm

In the Star Arm, certain rank levels are required of ship commanders (and their executive officers) as follows:

Ship	CO rank range	XO rank range
Scattership	98-109	90-97
Armored Scout	100-120	100-109
Frigate	118-139	110-117
Destroyer	130-159	112-119
Light Cruiser	130-159	118-129
Attack Cruiser	140-159	130-139
Heavy Cruiser	148-159	120-145
Carrier	150-159	130-139
Battle Cruiser	140-159	130-139
Battleship	140-159	130-139
Super Dreadnaught	140-159	130-139

Officers with rank above 159 (Commodore equivalent or higher — i.e. flag rank officers) will command squadrons or fleets of ships rather than single ships.

7.1.8 Functions Of The Ships

The Armored Scout and the Scattership are the workhorses of the Survey Branch of the Star Arm. It is these ships that perform most (though not all) of the preliminary survey missions for the Arm. The faster Scatterships determine which systems have planets and perform preliminary scientific surveys. Armored Scouts are then sent to star systems with planets to perform more detailed surveys. And survey squadrons carry out the detailed drudgery of thoroughly surveying the explored systems (a survey squadron typically consists of one frigate, two to three armored scouts, four to six scatterships, and two armored transports — converted freighters with powerful defensive shields — to carry all the needed scientific personnel).

The heavier ships are used for policing the starlanes — and for imposing the orders of the OverGovernment's Central Committee upon any rebellious groups within the Hegemony.

7.2 CIVILIAN LIFE

7.2.1 Instructor's Pay

The weekly pay rate for an instructor (with a 90% skill) in an institutional environment is $\frac{3}{5}$ the training cost per training period at the 26-50% skill level in that skill. For example, an individual with 90% skill level in Computer Science/General Programming could earn 150 smu/week training others at a training institute (the institute would, of course, earn far more than this, as there is typically more than one student per instructor). If the skill level of the instructor is greater than 90%, the pay rate is typically multiplied by (Skill level of Instructor)/90%. Thus an instructor with a 99% skill level will be paid $\frac{99}{90} = 1.1$ times the normal rate (or 165 smu/week for an instructor of General Programming).

Individual instructors who do not work for institutions, preferring instead to 'free lance' will receive the full fees paid by their students. However, they must have students willing to learn from them in order to receive any fees. Thus the income of a free lance instructor might far exceed that of his institutional brethren, but it might also be far exceeded by their income as well.

The maximum number of students that may be handled by any one instructor is determined as follows:

- (1) Divide the skill level of the instructor by 3%, and drop fractions (thus a 90% skill level results in a value of 30 units). This is the limit of the instructor's student load, in units assuming an 8 hour/day working day for the instructor.

Individual students will cost differing units, depending upon the skill range in which the students reside at the beginning of the training period.

- (2) For students in the 00-25% skill range, count 1 unit per student.
- (3) For students in the 26-50% skill range, count 3 units per student.
- (4) For students in the 51-75% skill range, count 6 units per student.
- (5) For students in the 76-100% skill range, count 10 units per student.
- (6) For students in the 101+ skill range, count 15 units per student.

NOTE: An instructor cannot train any student whose skill level at the beginning of the training period is higher than that of the instructor.

7.2.2 Industrial Pay Scales

In industry, the pay rate in a given skill for use of that skill is $\{(\text{skill level}/90\%)^2\} \times (\text{the pay rate of a 90\% skill level instructor}) \times 1.1$. An individual who has mastered a given skill will earn more using that skill than teaching the skill. Where more than a single skill is needed for a particular job, one skill (the primary needed skill) provides the base pay rate, then the secondary skill is paid at half the normal rate (a tertiary skill adding one-quarter the normal rate for that skill, a quaternary skill adding one-eighth the normal rate for that skill, etc.). Hiring the services of an individual through a contractor or a service company costs four times this amount.

Thus the typical Electrical Engineer, with a skill level of 55% in that field would be paid $(55/90)^2 \times (3/5) \times (250) \times 1.1 = 6655/108$ smu/week or approximately 61.62 smu/week. If he is hired through a service firm, however, the firm would be paid 246.28 smu/week for his services.

7.3 OTHER CIVILIAN CAREERS

7.3.1 Colonist

7.3.1.1 FIRST-IN COLONIST

The Survey Branch of the Star Arm has found a suitable world, the

Colonization Bureau and the Central Committee of the OverGovernment have approved it for colonization, and awarded colonization rights to one of the races of the Hegemony. Now the first-in colonist's work begins. His goal: survival, and the construction of a reasonable home on an at best indifferent world. His problem: he will be living the life of a pioneer — finding new and interesting ways to die. The Survey Branch starships that cleared the world as suitable for colonization cannot possibly discover every potential problem. And in this environment, what you don't know can very definitely hurt you.

7.3.1.2 PERMANENT COLONIST

Most of the really dangerous work of colonization has been already done. And the First-In colonist has already scouted the path for the Permanent Colonist. But where the First-In Colonist is an adventurous loner the Permanent Colonist is a family man, a conservative man of the soil. All he must contend with is the difficulty of living on a hostile world and tearing a living from unwilling soil. His Goal: to build a new home on a new world for himself, his family, and his descendants. His Problems: only those faced by any farmer on any world at any time — the weather, the local vermin (including the imported two-legged kind), and the market conditions for his goods. But on an untamed frontier world, those problems will be more than enough to keep his life very thrilling. It is the frontier worlds, after all, that hold the Class C societies (carry a rifle with you when you go out to the barn — and it better be loaded, with the safety off). (See Chapter 12, World Building, for more details on societal types).

7.3.2 Criminal

Here, the character is endeavoring to join (and come to rule) the local underworld of one or more star systems, and to generally rip off anything that isn't a fixed geographical feature of the planet. Piracy is impossible in the Hegemony as a result of the nature of the stardrive, but hijacking is not. His goal: to be the best stainless steel rat possible, to stay alive and, possibly, to become a Napoleon of the criminal world. His problem: There are police forces (or military ones, if his schemes become too grandiose) who will do everything in their power to stop him. And very few of the worlds of the Hegemony are democracies with masses of laws restricting the actions of their internal police forces.

7.3.3 Entrepreneur

The objective of the Adventurer following this career path is simple: to become as rich as he can in as short a time as possible, by whatever means present themselves. Typically, this will mean outfitting a starship, and going into the small haul shipping business, doing a little bit of exploration/exploitation on the sly, combined with a little salvage work, a bit of smuggling, and whatever other lucrative business opportunities might come along.

7.3.3.1 CRASHLANDINGS FOR THE ENTREPRENEUR

As properly outfitting a starship is an expensive proposition, it is highly likely that the budding entrepreneur will be forced to get financial backing from one or another of the major corporations. Being intelligently run, these corporations will expect a reasonable rate of return on their investment. And to this end, they will constrain their employees and contractors to follow certain simple rules.

So, much like their counterparts in the Fleet, the entrepreneurs also have a set of rules regarding unacceptable behavior (their 'crashlandings').

(1) Don't lose your ship or any other expensive piece of equipment — it will seriously reduce your profit margin. Especially if you need the equipment to get home again.

(2) Don't lose personnel. Trained people who are crazy enough to buck the odds are hard to come by. And the investment in time and money in a new employee/partner will again cut into your profit margin.

(3) Don't waste ammunition. It is expensive. And out in the middle of nowhere, it is amazingly hard to replace. Use as much as necessary to avoid failures under items 1 and 2 above, however.

(4) Don't try to shoot it out with Navy types — they are typically better armed. Fighting with warships is a waste of time, ammo, equipment, and personnel.

(5) Don't break interstellar law if you can all avoid it. Slave trading or commerce raiding tends to draw Navy types — see item 4 above.

(6) If you must break the law, don't get caught. Your supervisors (or backers) will be upset by the necessity of training your (expensive) replacement. Making smaller rocks out of larger rocks is boring, and not particularly profitable.

7.3.4 Industrial Espionage Agent

In this career, the Adventurer is endeavoring to sell his skills and any information he can gather to the highest bidder. He will go anywhere, do anything, if the price is high enough. His goal: to gather valuable information, and to become as rich as he possibly can selling it, while trying to avoid breaking the law (or at least avoid getting caught at it). His problem: the people he is trying to steal secrets from might object to his activities — violently; and it is very hard to enjoy a large bank account while on the way to the morgue.

7.3.5 Law Enforcement Officer

Where there are criminals, there will also be law officers. And their job is a 'simple' one: enforce the laws and attempt to guarantee that the more violent forms of criminal behavior are sufficiently dangerous for their perpetrators as to discourage all but the true psychopaths from engaging in them.

There are three general categories of law enforcement officers: Patrolmen, Investigators, and Detectives. Unlike the Arms, it is assumed that all characters began their careers as Patrolmen. Though some characters may begin play as Investigators or Detectives, it is assumed that they began as Patrolmen, and are only entering play after having reached their current august ranks (in other words, everyone equivalent to an officer in this profession is a 'mustanger', having come up through the ranks).

Law enforcement officers tend to classify all other beings into three categories: citizens, other law enforcement officers, and scum. If you're not a law enforcement officer then you're either a citizen or scum. The good lord help you if you're scum. Law enforcement officers will tend to regard Arm officers as other law enforcement officers. And they will regard Arm enlisted personnel as scum (this applies primarily to Enforcement Branch personnel, though it has on occasion extended to Survey Branch personnel). God help the poor bloody infantryman.

7.3.5.1 PAY RATES

Within each of the three categories (Patrolman, Investigator, and Detective) there are four grades (I, II, III, and IV, in order of increasing authority and responsibility). Pay rates are determined by category, grade, and seniority within grade, as follows:

Category	Grade	Pay Rate
Patrolman	I	Support Arm rank 7 + 1 step/year in grade
Patrolman	II	Support Arm rank 14 + 1 step/year in grade
Patrolman	III	Support Arm rank 21 + 1 step/year in grade
Patrolman	IV	Support Arm rank 28 + 1 step/year in grade

Maximum pay rate for any Patrolman grade is reached after 14 years in grade.

Category	Grade	Pay Rate
Investigator	I	Ground Arm rank 40 + 3 steps/2 years in grade
Investigator	II	Ground Arm rank 50 + 3 steps/2 years in grade
Investigator	III	Ground Arm rank 60 + 3 steps/2 years in grade
Investigator	IV	Ground Arm rank 70 + 3 steps/2 years in grade

Maximum pay rate for any Investigator grade is reached after 12 years in grade.

Category	Grade	Pay Rate
Detective	I	Air Arm rank 90 + 2 steps/year in grade
Detective	II	Air Arm rank 103 + 2 steps/year in grade
Detective	III	Air Arm rank 116 + 2 steps/year in grade
Detective	IV	Air Arm rank 129 + 2 steps/year in grade

Maximum pay rate for any Detective grade is reached after 10 years in grade.

For example, a Patrolman II who has been at that grade for at least nine years will be paid the same as a Support Arm enlisted man of rank 14 + 9 = 23. If our example Patrolman II were to be promoted to Patrolman III, he would lose the benefit of seniority in grade, and his pay would drop to that of a rank 21 Support Arm enlisted man. If our Patrolman II remained in grade for 15 years his pay rate would have topped out at the equivalent of rank 28.

7.3.5.2 PROMOTIONS

Within Category

The probability that a character will be promoted from one grade to the next higher grade within his current category is $[(4 - \text{Current Grade})^2] \times 5 + (\text{INT}/2)$, rounding fractions up. Promotion is by one grade only within category. Patrolmen are considered for promotion every 12 months, Investigators every 18 months, and Detectives every 24 months.

Between Categories

In order to be considered for promotion to the next higher category (i.e. from Patrolman to Investigator, or Investigator to Detective), the candidate must have at least one year in grade III or IV in his current category. In addition, certain skill requirements must be met before a character may stand for promotion to the next higher grade. In order to stand for promotion to Investigator, the character must have Criminal Apprehensions, Criminal Law, and Legal Semantics skills at 75% or greater, Streetwise at 60% or greater, and Computer Science, Data Base at 25% or greater. In order to stand for promotion to Detective, all Investigator skill requirements must be met and, in addition, the character must have the Streetwise skill at 90% or greater, Administration and Computer Science/Data Base at 75% or greater, and Psychology at 50% or greater. The test for Investigator is held every 18 months (in January, then July of the following year, and so on), and to pass the exam, a roll of LUC x 5 or less on 1D100 is needed. The test for Detective is held every 24 months (in January), and to pass the exam, a roll of LUC x 4 or less on 1D100 is needed. Individuals who are promoted are promoted to grade I or the next higher category.

7.3.5.3 WORK WEEK AND VACATION STANDARDS

All Patrolmen are uniformed officers, all Detectives are plain clothes officers. Investigators of grade I and II tend to be in uniform more often than not, Investigators of grade III and IV tend to be in plain clothes more often than not. All law enforcement officers (uniformed or not) are licensed to carry concealed weapons, and are considered to be 'on call' at all times. The theoretical work week for an officer is a 40 hour 5 day week, but the typical work week is considerably longer.

Vacation time is accrued at the rate of 1 day per month. It is assumed that characters entering with previous experience have used all accrued vacation time.

7.3.5.4 TRAINING COSTS

Training costs will be paid for by the police department for subjects directly applicable to the job (i.e. subjects that are listed as secondary skills for patrolmen, or are requirements for Detective or Investigator categories) if and only if the training is completed successfully (except for training in Streetwise and weapon skills which are always paid for by the department). Payment is made after the training is successfully completed, so the officer must be able to fund the initial bill himself.

7.3.5.5 SPECIAL WEAPONS AND TACTICS UNIT

Members of the SWAT team are a breed apart. Most law enforcement officers in the Hegemony think SWAT team members are nut cases (though still part of the family). Other officers have gone so far as to disown SWAT team members in their minds (i.e. they don't think of them as police any longer, and SWAT members certainly aren't citizens, which leaves only one possibility — see note above).

Any law enforcement officer who has reached Patrolman grade II or above, and has mastered certain skills may apply for transfer to the SWAT unit. The transfer request is approved on a roll of LUCK x 5 or less on 1D100. Transfer requests may only be made once per calendar year. Skills that must be mastered are as follows:

- (1) Streetwise
- (2) Martial Arts, Evade
- (3) Pistol, recoil type — 357 or 44 magnum
- (4) Pistol, recoilless type — Blaster
- (5) Rifle, recoil type — shotgun

There is also a minimum height requirement for SWAT team members of 1.8 meters (LEN of 180) and a STR requirement (minimum 15) among Human law enforcement organizations.

7.3.6 Merchant Mariner

In any environment with free trade, there will be traders. The objective of the merchant mariner is simple: to become rich hauling goods from one location to another (either legally or otherwise, as the opportunity permits). His problem: the vagaries of the marketplace, and the dim view that certain societies might take to smuggling (or similar quasi-legal activities).

7.4 THE COST OF LIVING

7.4.1 Typical Costs Of Common Goods

1 day room rental in hostel — 0.4 smu
 1 day room rental in motel equivalent — 0.6 smu
 1 day room rental in hotel — 0.8 smu
 1 day room rental in luxury hotel — 1.0-1.4 smu
 1 day rental of luxury suits in luxury hotel — 4-5 smu
 1 month's rent on a 2 bedroom apartment — 40 smu
 an excellent meal at a fine restaurant — 3 smu
 a good meal at a reasonable restaurant — 0.3 — 0.5 smu
 Food supplies for one human for one month — 8-10 smu
 A good suit — 20-30 smu
 Vehicle rental (ground car) — 2 smu/day + 0.01 smu/kilometer traveled + fuel cost.
 Vehicle rental (aircraft) — 10 smu/day + fuel cost.
 Vehicle rental (non-FTL spacecraft) — Cost of operation of vehicle plus 1% of original ship cost per week plus cost of pilot, and bond must be posted covering all possible damages to the spacecraft. Pilot will always be supplied by the rental agency — and his cost is paid by the renter.

Typical heavy workclothes — 8-10 smu
 A pair of heavy boots — 4-10 smu (depending upon quality)
 Medical Kit (first aid gear, spray bandages, adhesive, injector needles) — 2-3 smu.
 A good watch (accurate to within 1 second per month, adjustable to varying planetary rotational periods) will cost 2-4 smu.
 Batteries for same (lasting 5 years) will cost 0.1-0.2 smu.
 A flashlight costs 1 smu. Batteries for same cost 0.2-0.25 smu and will provide for 2400 hours of operation.

7.4.2 Interstellar Transport Costs

The cost of shipping goods over interstellar distances along established trade lines is a function only of the mass of the cargo and of the distance to be covered. However, due to the amount of time spent traveling in normal space compared to the time spent traveling in FTL jump space, the cost is not a straightforward linear function of distance and mass.

Shipping one metric ton (1000 kilograms; 2200 lbs) of cargo 100 light-years costs 200 smu. Ten tons shipped the same distance will cost ten times as much, or 2000 smu. But one metric ton of cargo shipped 10,000 light-years (one hundred times as far) will only cost ten times as much (or again, 2000 smu). In general, the cost of shipping N tons of cargo M light-years along established shipping lanes is as follows:

$$\text{Cost} = 20 \times N \times (M^{1/2})$$

(square root of the distance in light-years times twenty times the mass of the cargo gives the cost of shipping, in smu).

Shipping of live cargo, or cargo requiring elaborate handling throughout the course of the trip, is somewhat more expensive. Such passenger cargo is assessed the normal cargo cost (with a minimum assumed mass of 100 kilograms per 'passenger') plus 5 smu/day of trip time. Luxury liners may, of course, charge somewhat more per day (as much as 10-20 smu/day of trip time on the most exclusive of the breed) and freighters that just happen to have passenger accommodations may charge less (as little as 0.5-1.0 smu/day of trip time).

7.4.3 Parting Comments

The preceding values are only indicative of the general market costs and pay rates. Specialized local conditions will cause variations from the given costs. If supply and demand/need are unbalanced, the costs will vary from those given for any commodity.

8. Previous Experience

8.1 RANK DETERMINATION FOR MILITARY CHARACTERS

All characters beginning play as members of the armed services are assumed to have had some measure of experience prior to the date they enter play.

Scientific personnel are assumed to have had the equivalent of six years training in their field (college plus two years of graduate school). Medical personnel are assumed to have had the equivalent of twelve years of training in their field (college, medical school, one year of internship, three years of residency). In recognition of this, scientific and medical personnel in the armed forces are granted courtesy commissions — they are officers, but they are not in the chain of command. To determine the rank of these officers, roll 4D10 and add 88 (for scientific personnel) or add 100 (for medical personnel).

For each other new character, roll 1D100. If the result is equal to or less than the character's LUC, the character is a regular commissioned officer and a graduate of one of the many service academies. Academy trained officers are all line officers and to determine their rank, roll 4D10 and add 86. For all other new characters, starting ranks are as follows:

1D6 roll	Rank Determination Method
1	Rank = 1D100
2	Rank = 12 + 1D100
3	Rank = 24 + 1D100
4	Rank = 50 + (1D100)/2
5	Rank = 60 + (1D100)/2
6	Rank = 70 + (1D100)/2

Non-academy trained officers are assumed to be graduates of OCS (Officer Candidate School).

Military characters are assumed to begin in the campaign with no cash and no accumulated leave time.

8.2 SKILL POINT AND SKILL ADDERS RESULTING FROM PAST EXPERIENCE

For each new character, the initial allotment of skill points for the character is $(11+1D4) \times INT$. These skill points may be used (at a cost of 1 point per 1 percentile point increase in skill level) to increase the skill level of any of the skills available to the character. NOTE: skill points may not be expended to increase the skill level of a skill above the 50% level. These skill points are applied after the character's specialization is chosen, and his base skill levels in the appropriate skills have been determined (his primary subfield being at $35 + INT + Knowledge$ bonus, his secondary subfields being at 1/2 that level — see Chapter 5 — Specialties And Skills).

After the skill points are all allocated, roll for the number of skill adders on the following chart:

1D6 roll	Intelligence							
	1-4	5-8	9-12	13-16	17-20	21-24	25-28	29+
1	0	0	1	1	2	3	3	4
2	0	0	1	2	3	3	4	4
3	0	1	2	2	3	4	4	5
4	0	1	2	3	4	4	5	5
5	0	2	3	3	4	5	5	6
6	1	2	3	4	5	5	6	6

For each skill adder, select a specific skill that improvement is desired in, roll on the following chart, and increase the skill level of that skill by the indicate number of percentile points:

1D12 roll	Percentile points added
1	24
2-3	21
4-5	18
6-7	15
8-9	12
10-11	9
12	6

8.3 NON-MILITARY CHARACTERS

With the exception of law enforcement officers and criminals, it is assumed that all non-military characters have been employed by one or another of the larger businesses in some capacity. It is also assumed that such characters have been a bit lucky in the past and are now setting out to become astronomically wealthy.

Thus, all non-military characters save law enforcement officers and criminals begin the game with $(100,000 + (1D100) \times 1,000)$ smu. Instead of the expected 150,500 smu, a criminal may add a total of up to 100 skill points to any non-zero base skills.

8.3.1 Previous Experience For Law Enforcement Officers

8.3.1.1 CATEGORY AND GRADE

1D10 Roll	Category	1D20 Roll	Grade
01	Detective	01	IV
02-03	Investigator	02-03	III
04-10	Patrolman	04-07	II
		08-20	I

For Investigator and Detective starting characters, assume the minimum required values for extra skills, and assume that the promotion to the current grade occurred at the most recent possible time (i.e. assume minimum time in grade). Skill points and skill adders may then be applied as usual, save that Investigators have 100 points fewer than normal, and Detectives have 150 points fewer than normal (treat skill point totals of less than zero as zero).

9. Intelligent Species

9.1 HIT POINT AND HIT LOCATION TABLES

For tailed bipeds (Altani, H'Reli, Korli, L'Drey, Sanchenzii, and Uquoi):

1D20 roll	Specific Area	Hit Points and END points/Total
01-02	Head	0.25 (round fractions up)
03-05	Right Arm	0.30 (round fractions up)
06-08	Left Arm	0.30 (round fractions up)
09	Chest	0.45 (round fractions up)
10-11	Abdomen	0.40 (round fractions up)
12-15	Right Leg	0.35 (round fractions up)
16-19	Left Leg	0.35 (round fractions up)
20	Tail	0.25 (round fractions up)

For tailless bipeds (Bjora, Humans):

1D20 roll	Specific Area	Hit Points and END points/Total
01-02	Head	0.25 (round fractions up)
03-05	Right Arm	0.30 (round fractions up)
06-08	Left Arm	0.30 (round fractions up)
09	Chest	0.45 (round fractions up)
10-12	Abdomen	0.40 (round fractions up)
13-16	Right Leg	0.35 (round fractions up)
17-20	Left Leg	0.35 (round fractions up)



For tailed quadrupeds (Skiltaire and Stage 1 Dakti):

1D20 roll	Specific Area	Hit Points and END points/Total
01-02	Head	0.25 (round fractions up)
03-06	Right Fore Leg	0.35 (round fractions up)
07-09	Left Fore Leg	0.35 (round fractions up)
10-11	Forequarters	0.45 (round fractions up)
12-13	Hindquarters	0.45 (round fractions up)
14-16	Right Hind Leg	0.35 (round fractions up)
17-19	Left Hind Leg	0.35 (round fractions up)
20	Tail	0.25 (round fractions up)

For tailed centauroids (Ata'a):

1D20 roll	Specific Area	Hit Points and END points/Total
01-02	Head	0.25 (round fractions up)
03-04	Right Arm	0.30 (round fractions up)
05-06	Left Arm	0.30 (round fractions up)
07-08	Chest	0.45 (round fractions up)
09-10	Right Fore Leg	0.35 (round fractions up)
11-12	Left Fore Leg	0.35 (round fractions up)
13	Forequarters	0.40 (round fractions up)
14-15	Hindquarters	0.40 (round fractions up)
16-17	Right Hind Leg	0.35 (round fractions up)
18-19	Left Hind Leg	0.35 (round fractions up)
20	Tail	0.25 (round fractions up)

For insectoid flyer types (Stage 2 Dakti):

1D20 roll	Specific Area	Hit Points and END points/Total	Description
01-03	Head	0.25 (round fractions up)	Entire Head
04	Right Fore Leg	0.20 (round fractions up)	Right fore leg from thorax to end of leg
05	Left Fore Leg	0.20 (round fractions up)	Left fore leg from thorax to end of leg
06	Right Fore Wing	0.10 (round fractions up)	Right fore wing from thorax to wingtip
07	Left Fore Wing	0.10 (round fractions up)	Left fore wing from thorax to wingtip
08-11	Thorax	0.40 (round fractions up)	Mid-body to Head
12	Right Rear Wing	0.10 (round fractions up)	Right rear wing from thorax to wingtip
13	Left Rear Wing	0.10 (round fractions up)	Left rear wing from thorax to wingtip
14	Right Middle Leg	0.20 (round fractions up)	Right middle leg from thorax to end of leg
15	Left Middle Leg	0.20 (round fractions up)	Left middle leg from thorax to end of leg
16	Right Rear Leg	0.20 (round fractions up)	Right rear leg from thorax to end of leg
17	Left Rear Leg	0.20 (round fractions up)	Left rear leg from thorax to end of leg
18-20	Abdomen	0.45 (round fractions up)	Mid-body to end to tail (and stinger)

Treat damage to the abdomen area as per damage to the chest area of humanoids; treat damage to the thorax as per damage to the abdomen area of humanoids.

For Crablike octopods (Stage 3 Dakti):

1D20 roll	Specific Area	Hit Points and END points/Total
01-02	Head	0.25 (round fractions up)
03-04	Right Arm	0.35 (round fractions up)
05-06	Left Arm	0.35 (round fractions up)
07-14	Body	0.50 (round fractions up)
15	Right Fore Leg	0.30 (round fractions up)
16	Left Fore Leg	0.30 (round fractions up)
17	Right Middle Leg	0.30 (round fractions up)
18	Left Middle Leg	0.30 (round fractions up)
19	Right Rear Leg	0.30 (round fractions up)
20	Left Rear Leg	0.30 (round fractions up)

Treat damage to Body as per damage to Chest in humanoids.

9.2 SPECIES DESCRIPTIONS

9.2.1 The Species Descriptions

The species of **OTHER SUNS** are described in a fixed format. Game mechanics data is given first. This allows players to roll up characters of that species, though not to role play them. Then a brief background covering species' biology, homeworld, and species unique weaponry is given. Next, a brief description of the language and racial character of the species is provided to aid in role playing. Individuals may deviate (sometimes dramatically) from these species' 'norms' of behavior, but players should endeavor to play their Adventurers 'in character' for the species; this is, after all, one of the principal reasons for playing the game. Finally, a description is provided of the physical characteristics of the species in question (for more details regarding this description, see Chapter 14, Appendices).

9.2 THE MAJOR RACES

9.2.1 Altani

Char.	Dice	Expected	Species Maximum
STR	4D6	14	28
INT	2D6+9	16	25
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10	22	44
DEX	4D6	14	28
CHA	3D6	10.5	21
LEN	3D6+146	156.5	168
BLD	2D8+1	10	20
SIZ	---	18	23 (22 rollable maximum)
TSC	4D10	22	N/A
TPR	4D10	22	N/A

Expected Bonuses:

Accuracy	= +18.5%
Attack	= +21.5%
Damage Bonus	= +1D4/+1D2
Dodge	= +18.5%
Hit Points	= 15
Knowledge	= +11.5%
Luck	= 14
Manipulation	= +20%
Observation	= +11%
Parry	= +13.5%
Persuasion	= +2.25%
Stealth	= +22.5%

Armor = 1 point fur (impact protection only)

Expected Mass = 58 kilograms (128 lbs)

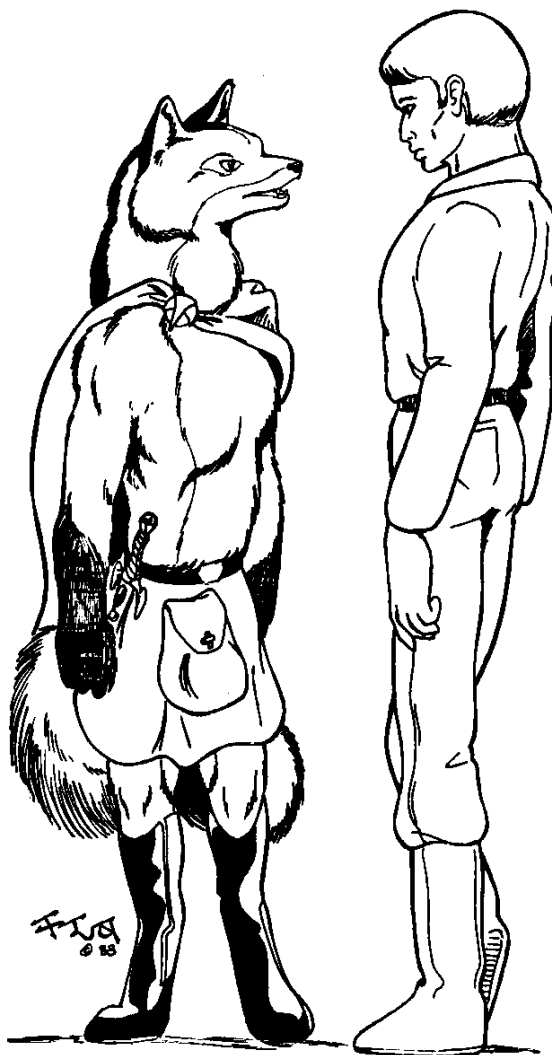
Natural Weapon's damages:

claws on hands	— 1D4
bite	— 1D6
claws on feet	— 1D6+1

9.2.1.1 BRIEF BACKGROUND

The Altani are a bipedal vulpinoid telepathic species that was created out of a non-telepathic, but otherwise similar species through genetic engineering. The Old Race Altani were killed off in a series of genocidal civil wars with their telepathic successors.

Han, their homeworld, has a surface gravity 1.48 times that of Earth, and orbits an F5 main sequence star at a distance of 1.64 Astro-



nomical units (roughly 153 million miles). It is in the midst of a glacial epoch.

The Altani are descended from a purely carnivorous species similar to the terrestrial red fox in appearance and the terrestrial wolf in social organization and behavior patterns. They are not as gregarious as humans, though they are still definitely very social animals.

Descent is matrilineal and offspring take the pack name of the mother. The females tend to run the society (in much the same way that men rule in current US society, women's liberation notwithstanding).

Altani are monogamous by nature (as opposed to by cultural decree, as with humans) and they mate for life. Death of one member of a mated pair will cause the survivor sufficient grief that suicide is viewed as the only recourse (and the society accepts this fact). They are sexually active (at a low level) all year round, with a cyclic major sexual arousal at roughly sixty day intervals.

All members of the current species are telepathic.

The Altani were the most important race in the Hegemony during its Dominate Phase (during the Second Expansion) and have lost none of their pride in this fact over the intervening millenia. They are one of the five races having a representative on the OverGovernment's ruling board, the Central Committee (the other races being the H'Reli, the Bjora, the Ata'a, and the Uquo), and are still an extremely important race within the Hegemony, though they are no longer the dominant race.

9.2.1.1.1 Ancient weapons of the Altani

The doublesword has two curved blades set parallel to each other sharing a common hilt. It is a class A1 type S weapon, its length and mass are 0.7 meters, and 1.3 kilograms respectively. It has 35 hit points, does 1D8 damage, and its training costs are as follows: 100/150/300/450/600. The doublesword costs 45 smu.

Clawfeet are steel claw extenders that fit onto the clawed feet of an Altani. They are class F1 type S weapons with length and mass of 0.1

meters and 0.1 kilograms respectively. They are 15 hit point weapons, add +3 damage to normal foot claw attacks, and their training costs are as follows: †25/250/375/500/800. A set of clawfeet cost 10 smu.

9.2.1.2 PACK DETERMINATION AND NAMING CONVENTIONS

The social factor given after each pack indicates the degree to which individuals of that pack are given a head start in life. All males are -1 social factor automatically. Thus, for example, a Tuu pack male would have the advantage of a +7 social factor. Social factor translates directly into an increased (or decreased) initial rank in the armed forces (on a one for one basis) and into a difference of 5000 smu/point of social factor in the case of merchants (note: all males of other than the major packs listed below are automatically at a slight disadvantage - of either 5000 smu for merchants or one step in rank for military personnel).

Pack (matrilineal clan) Determination for Altani

1D100 roll	Pack	Meaning of Pack Name	Social Factor
01-02	Tuu	Sword	8
03-04	Au	Flower	8
05-07	Tau-Riene	Sweet Blossom	6
08-10	Ysan	River	6
11-13	Larn	Mountain	6
14-17	Akal	Lightning	5
18-21	San	Ice	5
22-29	Susha	Glacier	4
30-37	Kin Po	Steel	4
38-50	Tiaou	Storm	4
51-62	Chai	Star	3
63-74	Tal	Death	2
75-86	Chen	Dance	1

• On rolls of 87-00, the character is a member of some other clan of far lesser significance (social factor 0).

A Short list of Given names: Alis = Blade, Isan = Crystal, Larin = Justice, Lieaou = Dark/Darkness, Riari = Quiet/Silence, Sain = Mists, Shal = Light/Brightness, Shata = Stone, Sira = Flame, Sind = Blood, Tau = Fire.

Where [P1] is the Pack name of a given individual, [P3] is the given name of the individual, and [P2] is the appropriate gender particle (Ir for males, Ira for females) the full name of the character will be [P1] [P2] [P3]. For example, a male of pack Tuu with given name Lieaou, would have a full name of Tuu Ir Lieaou. In the familiar form of the name, all save the first consonant (or consonant cluster) of [P1] is dropped, [P2] is dropped completely, and a glottal stop is inserted between the remainder of [P1] and [P3]. Thus Tuu Ir Lieaou would become T'Lieaou in familiar form. This familiar form is, however, generally used only between extremely close friends or family members. Nicknames, as a rule, are used only between lovers or mates.

Our example name, Tuu Ir Lieaou, would translate into English as Sword of Darkness, or Darksword. An alternate translation might be Blacksword.

9.2.1.3 ALTANI LANGUAGES

9.2.1.3.1 Harasha

One of the languages of the Old Race Altani (the non-telepathic precursors of the current species). This is also the principal language of the L'Drey, the ship people (described in greater detail later in this chapter).

9.2.1.3.2 L'Doran Universal

Originally designed as a 'common' tongue for the modern Altani species, this language has been adopted as the official language of commerce and diplomacy throughout the Hegemony.

9.2.1.3.3 Raika

The language of the elite of the central worlds of the Altani species - the homeworld, Han, and the first three colony worlds, L'Dyen III, Siru, and Ileewoe.

9.2.1.3.4 Minor Languages

Sira, Chem, and Tyala are all frontier world tongues that developed during the Dark Times after the collapse of the earlier Hegemonic Civilization that resulted from the Hegemony-Empire Wars.

9.2.1.4 THE ALTANI OUTLOOK

- (1) There is a passion for virtue and for doing one's duty.
- (2) The five cardinal virtues are: wisdom, justice, courage, honor, and obedience to duty.
- (3) Fortitude and indifference to pain and sorrow are also important

- (4) Only virtue justifies power over another intelligent being.
- (5) But virtue must also be regarded as its own reward.
- (6) There is a basic natural law governing all intelligent life forms.
- (7) Under this law, all intelligent life forms are basically equal.

Attitudes of the Altani Upper/Middle class

Characteristic	Altani Attitude
'Human' equality	Absurd
World View	Pessimistic (Stoic)
Dignity	Basic Virtue
Poverty	Basic Virtue
National Memory	Extremely long
Galactic Domination	Eager to accept

Attitudes of the Altani Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	The Elders of the Pack
Most great individuals receive	Admiration
Hero image	Puritanical, stern, virtuous, conservative, and devoted to duty.
Individualism	Subordinated
Primitive masses are	Codii = Non-military personnel.
Sophisticated, educated aliens evoke	Slight awe
Ambition in others	Highly approved, unless it becomes a real threat to the Altani or Han.
Greatest weakness	Unity
Attitude toward others' culture	Indebtedness
Dilettanteism	Unappreciated
Leisure	A vice

9.2.1.5 ALTANI PHYSICAL CHARACTERISTICS

- (1) Gravitational Norm and Tolerance Range: 1.48 g, 0-3 g, max 5g
- (2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.56 atmospheres.
- (3) Temperature Range Norm and Tolerance: -6 to +24 degrees C mean; -16 to +32 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: 5' to 5'4"
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.04 rem steady state (per week), less than 100 rem short term.
- (8) Sensory Types, location, and sensitivities:
 - (8A) Electromagnetic:
 - Coarse: 7,000-10,000 Angstroms; skin
 - Fine: 2,800-6,000 Angstroms - color vision; eyes
 - (8B) Pressure Differential:
 - Remote: 20-28,000 cycles; ears
 - Contact: skin, muzzle hairs
 - (8C) Chemosensing:
 - Coarse: Depends on substance; skin, tongue
 - Fine: Nasal cavity (slightly more sensitive than human), tongue
 - (8D) Damage Detection:
 - Corrosion: skin
 - Other: internal electromagnetic nervous system
 - (8E) Texture Sensing: skin
 - (8F) Psi senses: Telepathic communications to an average of 220 meters range (10 meters per point of TSC).
 - (8G) Other: No other senses
 - (8H) Substances absorbed: Oxygen, other creatures, fruit, water, miscellaneous trace elements. Carnivorous.
 - (8I) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.
 - (8J) Reproductive Methods: Typical mammalian; gestation period 322 days (single birth); seasonal sexual cycle.
 - (8K) Body shape and Natural Weapons: Vulpinoid (foxlike), bipedal, tailed; hands and feet and retractile claws in fingers.
 - (8L) Periodic Functions: day/night sleep/wake cycle (nocturnal species); 60 day sexual arousal cycle and menstrual cycle.
 - (8M) Non-sensory Psi Functions: Varies with individual.

9.2.2 Ata'a

Char.	Dice	Expected	Species Maximum
STR	5D6	17.5	35
INT	2D6+8	15	24
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10	22	44
DEX	3D6+3	13.5	27
CHA	3D6	10.5	21
LEN	6D10+235	268	303
BLD	8D6	28	56
SIZ	---	35	48 (45 rollable maximum)
TSC	RdD6	0	N/A
TPR	1D6+1	4.5	N/A

Expected Bonuses:

Accuracy	=	+15.5%
Attack	=	+22%
Damage Bonus	=	+1D8/+1D4
Dodge	=	-2.5%
Hit Points	=	27
Knowledge	=	+9.5%
Luck	=	13
Manipulation	=	+20.75
Observation	=	+9%
Parry	=	-3.25%
Persuasion	=	+1.75%
Stealth	=	-14.5%

Armor = 0 points

Expected Mass = 429 kilograms (944 lbs)

Natural Weapons' damages:	fists - 1D3
	tail - 1D8
	bite - 1D6
	kick - 1D8

RdD6 - Roll 1D6. On a roll of 1-5, record a 0. On a roll of 6, record a 1.

9.2.2.1 BRIEF BACKGROUND

The Ata'a are a hexapodal species. Four of the limbs are used for locomotion, and the remaining two for manipulation. They are non-furred, fanged, hexapodal tailed centauroid creatures, with heads vaguely reminiscent of cocker spaniels' (and they have long floppy ears).

The Ata'a homeworld, Imol, is a terrestrial type world with a surface gravity 0.98 times that of Earth which orbits a G3 main sequence star at a mean distance of 0.98 Astronomical Units (roughly 91 million miles).

The Ata'a are descended from an omnivorous hexapodal species. And they are plantigrade (that is, they walk on the soles of their feet) as opposed to the Altani and H'Reli, which are both digitgrade species (walking on their toes).

Descent is patrilineal, and the basic unit of the Ata'a society corresponds to the nuclear family - two adults plus offspring. They are as gregarious as human beings, coming from a species that succeeded through organization rather than violent aggression on an individual level.

Like humans, they are polygamous by nature, though by societal decree they are now a monogamous species.

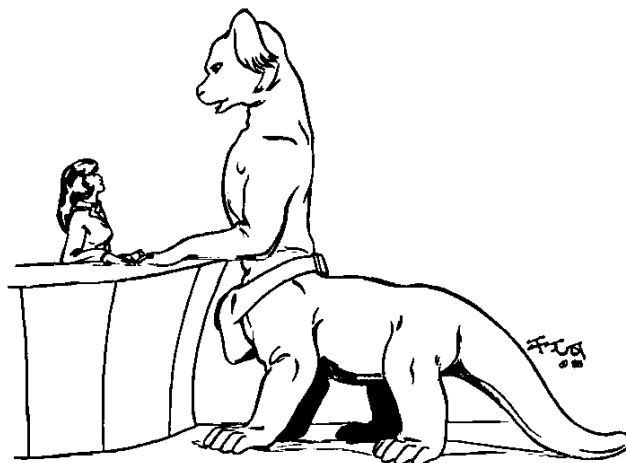
The Ata'an Assembly (the Ata'an species government within the Hegemonic OverGovernment structure) is a republican democracy, and has been for several thousand years.

The Ata'a joined the Hegemony just prior to the Hegemony-Web War at the end of the Third Expansion. At the time of its assimilation, the Ata'an Assembly governed over 400 star-systems. The Ata'a, through political maneuvering, managed to quickly attain a permanent position for themselves in the Central Committee of the Hegemonic OverGovernment.

9.2.2.1.1 Ancient weapons of the Ata'a

The bodylance is a lance set on a body harness and used as a shock weapon in a charge. It is a class G2 type T weapon with length and mass of 2.8 meters and 2.5 kilograms respectively. It is a 25 hit point weapon, does 2D12 damage, and its training costs are as follows: 125/250/500/1000/1500. A bodylance costs 225 smu.

The greatclub is a simply a gargantuan club. It is a class E2 type B weapon with length and mass of 1.8 meters and 4.5 kilograms respectively. It is a 30 hit point weapon, does 4D6 damage, and its training costs are as follows: 75/150/300/450/600. A greatclub costs 20 smu.



9.2.2.2 NAMES AMONG THE ATA'A

The following are a small set of sample names common among the Ata'a:

Family Names: Chemagag, Sharagit, Shlashlikag, Tschagga, Takgragalik.

Given Names: Chezerist, Chleban, Imsalakt, Sirazu, Tiiduuktak, Yastriba.

The order of the name in common speech is (Family Name) (Given Name). There is a familiar form of the name formed by taking the father's given name and adding -aka and following this with the individual's given name. For example, the familiar form of Chemagag Chleban, offspring of Chemagag Imsalakt, would be Imsalaktaka Chleban.

9.2.2.3 ATA'A LANGUAGES

There are only two major living languages among the Ata'a. The first, Chaza, is spoken primarily on the homeworld and on those Ata'an worlds that did not fall out of communication with the homeworld during the Dark Times. The other, Renzi, is spoken primarily on those world that fell out of contact during the Dark Times following the Hegemony-Empire Wars, and have only recently rejoined the mainstream of Hegemonic Civilization.

9.2.2.4 THE ATA'A OUTLOOK

(1) There is a passion for physical pleasure and relaxation (they are hedonists but, though polygamous by nature, they are monogamous by cultural decree).

(2) The four cardinal virtues are: honesty, courage, honor, and charity.

(3) Strength of will and character, and tenacity are also considered important.

(4) Only these virtues justify power over another intelligent being.

(5) Virtue is a means to an end, not an end in itself.

(6) There is a basic natural law governing all intelligent life forms.

(7) Under this law, all intelligent life forms are basically equal.

Attitudes of the Ata'a Upper/Middle class

Characteristic	Ata'a Attitude
'Human' equality	Axiomatic
World view	Optimistic (Hedonist)
Dignity	'putting on airs'
Poverty	Vice
National Memory	Long
Galactic Domination	Prepared to accept, but not eager to accept.

Attitudes of the Ata'a Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	The rule of law
Most great individuals receive	Respect
Hero image	The scientist
Individualism	Exalted
Primitive masses are	Peasants
Sophisticated, educated aliens evoke	Respect
Ambition in others	Accepted for what it is
Greatest weakness	Lack of aggressiveness
Attitude toward others' culture	Interest
Dilettanteism	Unappreciated
Leisure	A worthwhile goal

9.2.2.5 ATA'A PHYSICAL CHARACTERISTICS

- (1) Gravitational Norm and Tolerance Range: 0.98 g, 0-1.5 g, max 5g
- (2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.00 atmospheres.
- (3) Temperature Range Norm and Tolerance: 0 to + 30 degrees C mean; -10 to +40 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: 8' to 10'
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.03 rem steady state (per week), less than 100 rem short term.
- (8) Sensory Types, location, and sensitivities:
 - (8A) Electromagnetic:
 - Coarse: 7,000-10,000 Angstroms; skin
 - Fine: 4,000-7,000 Angstroms — color vision; eyes
 - (8B) Pressure Differential:
 - Remote: 20-20,000 cycles; ears
 - Contact: skin
 - (8C) Chemosensing:
 - Coarse: Depends on substance; skin, tongue
 - Fine: Nasal cavity, tongue
 - (8D) Damage Detection:
 - Corrosion: skin
 - Other: internal electromagnetic nervous system
 - (8E) Texture Sensing: skin
 - (8F) Psi senses: varies with individual
 - (8G) Other: No other senses
- (9) Substances absorbed: Oxygen, other creatures, plants, water, miscellaneous trace elements. Omnivorous.
- (10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.
- (11) Reproductive Methods: Typical mammalian; gestation period 13 months (single birth).
- (12) Body shape and Natural Weapons: Tailed centauroid fanged hexapod; hands, feet, teeth, and tail.
- (13) Periodic Functions: 24-30 hour day/night sleep cycle (diurnal); 24-32 day female menstrual cycle.
- (14) Non-sensory Psi Functions: Varies with individual



9.2.3.1 BRIEF BACKGROUND

The Bjora are an omnivorous tailless plantigrade ursinoid species, resembling nothing so much as oversized kodiak bears.

Ragronar, the homeworld of the Bjora, is a terrestrial type world with a surface acceleration 1.37 times that of Earth. It orbits an F5 main sequence star at a distance of 1.62 Astronomical Units (or roughly 151 million miles).

Fierce competition with other of the local fauna forced the proto-Bjoran species into tribes similar in size to the tribes of the proto-humans of millions of years ago. Perhaps as a result, the Bjora are now among the most gregarious of the Hegemonic species (being matched only by humans and, possibly, the Ata'a and the Skiltaire in this characteristic). All serious competitors have been eliminated within historical times, during the rise of civilization on their homeworld. And, though they have engaged in warfare among their own kind, the mad world destroying wars of a developing technological society like Earth's somehow never happened on their world.

Whether by luck or by conscious design, the Bjora developed a world government, and later multi-system governments, without the recourse of war so commonly used among the other Hegemonic species. They are, so to speak, just big lovable teddy bears.

But should one of those big lovable teddy bears be pushed too far... he (or she) will attempt to emulate the societal hero — the warrior bard — and rip his (or her) taunters into bloody bits (and be prepared to sing a suitable epic describing the entire incident immediately after the muzle has been washed and the blood has been cleaned from the hands).

The line of descent is traced either through the maternal or paternal line, depending upon the sex of the offspring. Male offspring trace their descent through the paternal line, female offspring trace their descent through the maternal line.

In addition to the tracing of descent and estates to natural offspring within the paternal and maternal clans, there is considerable adoption between clans for the purpose of procuring suitable heirs and to cement political alliances.

The Bjora are polygamous by nature (though not as much so as humans). Their societies have reflected this — and there are polygamous, polyandrous, and monogamous subcultures throughout the Bjoran society. What is more important, of course, is that all of these diverse marriage customs are considered respectable (though perhaps a trifle unusual) by the practitioners of each of the others.

9.2.3 Bjora

Char.	Dice	Expected	Species Maximum
STR	6D6	21	42
INT	2D6+6	13	21
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10+80	102	125
DEX	2D6+2	9	17
CHA	3D6	10.5	21
LEN	5D20+300	352.5	406
BLD	8D6	28	56
SIZ	---	44	59 (55 rollable maximum)
TSC	RdD6	0	N/A
TPR	2D6	7	N/A

RdD6 — Roll 1D6. On a roll of 1-5, record a 0. On a roll of 6, record a 1.

Expected Bonuses:

Accuracy	=	+2.5%
Attack	=	+12.5%
Damage Bonus	=	+2D6/+2D3
Dodge	=	-15.5%
Hit Points	=	53
Knowledge	=	+5.5%
Luck	=	12
Manipulation	=	+13.5%
Observation	=	+5%
Parry	=	-20.5%
Persuasion	=	+0.75%
Stealth	=	-45.5%

Armor = 1 point fur (impact protection only)

Expected mass = 852 kilograms (1874 lbs)

Natural Weapons' Damage: bite — 1D6
fists — 1D4
kick — 1D8

The Bjora became a member race of the Hegemony during the early years of the Third Expansion, after the fall of the Suzrainty of Han in the Civil Wars that ended the Second Expansion. They have a permanent representative on the Central Committee.

9.2.3.1.1 Ancient Weapons of the Bjora

The greatstaff is a long metal bar. It is a class E2 type B weapon, 4.0 meters long with a mass of 12 kilograms. It is a 40 hit point weapon, does 5D12 damage, and its training costs are as follows: 150/300/600/1200/1800. The greatstaff costs 200 smu.

The staraxe is a large double bladed two handed war axe. It is a class C2 type S weapon 5.5 meters long with a mass of 14 kilograms. It is a 25 hit point weapon, does 6D6 damage, and its training costs are as follows: 125/250/500/750/1000. A staraxe costs 250 smu.

9.2.3.2 COMMON BJORAN NAMES

Clan Names: Dagrán, Egral, Fragni, Gakra, Grendalk, Hrash, Larga, Maran.

Given Names: Grigor, Hamrisa, Handal, Immirsal, Tagran, Telkar, Vulkar, Waigan.

The given name appears first, then the clan name (just as with present day western european names).

9.2.3.3 BJORAN LANGUAGES

9.2.3.3.1 Tagarik

The language of the epic poems and the religious works of the Bjora. Otherwise, a dead language.

9.2.3.3.2 Narsa

The common language of the central worlds of the Bjoran Allthing.

9.2.3.3.3 Hemtak

A divergent dialect of Narsa that originated and spread through several of the frontier populations cut off from the mainstream of Bjoran and Hegemonic civilization during the Dark Times.

9.2.3.4 THE BJORAN OUTLOOK

(1) There is a passion for physical exercise and pleasure (they are hedonists but, though polygamous by nature, they are monogamous by cultural decree — though they are not hard-nosed about it, and not all subcultures are bound by the decrees).

(2) The five cardinal virtues are: honesty, courage, honor, charity, and obedience to duty.

(3) Strength of will and character, and tenacity are also considered important.

(4) Only these virtues justify power over another intelligent being.

(5) Virtue is an end in itself, not merely a means to an end.

(6) There is a basic natural law governing all intelligent life forms.

(7) Under this law, all intelligent life forms are basically equal.

Attitudes of the Bjoran Upper/Middle class

Characteristic	Bjoran Attitude
'Human' equality	Axiomatic
World view	Optimistic (Hedonist)
Dignity	Basic Virtue
Poverty	Irritation
National Memory	Reasonably long
Galactic Domination	Prepared to accept, but not eager to accept.

Attitudes of the Bjoran Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	The rule of law
Most great individuals receive	Admiration
Hero image	The warrior bard
Individualism	Exalted
Primitive masses are	Peasants
Sophisticated, educated aliens evoke	Admiration
Ambition in others	Accepted for what it is
Greatest Weakness	lack of aggressiveness
Attitude toward others' culture	Interest
Dilettanteism	Unacceptable
Leisure	A worthwhile goal, but not the only worthwhile goal.

9.2.3.5 BJORAN PHYSICAL CHARACTERISTICS

(1) Gravitational Norm and Tolerance Range: 1.37 g, 0-3 g, max 5g.

(2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.45 atmospheres.

(3) Temperature Range Norm and Tolerance: -6 to +30 degrees C mean; -16 to +40 degrees C daily.

(4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.

(5) Size Range: 10' to 13'

(6) Chemical Base: Carbon

(7) Particle Radiation Tolerance: Less than 0.05 rem steady state (per week), less than 120 rem short term.

(8) Sensory Types, location, and sensitivities:

(8A) Electromagnetic:

Coarse: 7,000-10,000 Angstroms; skin

Fine: 2,600-7,000 Angstroms — color vision; eyes

(8B) Pressure Differential:

Remote: 20-19,000 cycles; ears

Contact: skin, muzzle hairs

(8C) Chemosensing:

Coarse: Depends on substance; skin, tongue

Fine: Nasal cavity (slightly more sensitive than human), tongue

(8D) Damage Detection:

Corrosion: skin

Other: internal electromagnetic nervous system

(8E) Texture Sensing: skin

(8F) Psi senses; varies with the individual

(8G) Other: No other senses

(9) Substances absorbed: Oxygen, other creatures, plants, water, miscellaneous trace elements. Omnivorous.

(10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.

(11) Reproductive Methods: Typical mammalian; gestation period 560 days (single birth).

(12) Body shape and Natural Weapons: Ursinoid (bearlike), bipedal, tailless; hands and feet, teeth, and non-retractile claws on feet.

(13) Periodic Functions: 29-38 hour day/night wake/sleep cycle (diurnal species); 36-45 day female menstrual cycle.

(14) Non-sensory Psi Functions: Varies with individual.

9.2.4 Dakti

STAGE 1

Char.	Dice	Expected	Species Maximum
STR	6D6	21	42
INT	2D6+6	13	21
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	6D6+12	33	55
DEX	2D6+12	19	27
CHA	3D6	10.5	21
LEN	130+1D100	180.5	231
BLD	6D6	21	42
SIZ	---	25	37 (34 rollable maximum)
TSC	1D3	2	N/A
TPR	2D4+1	6	N/A

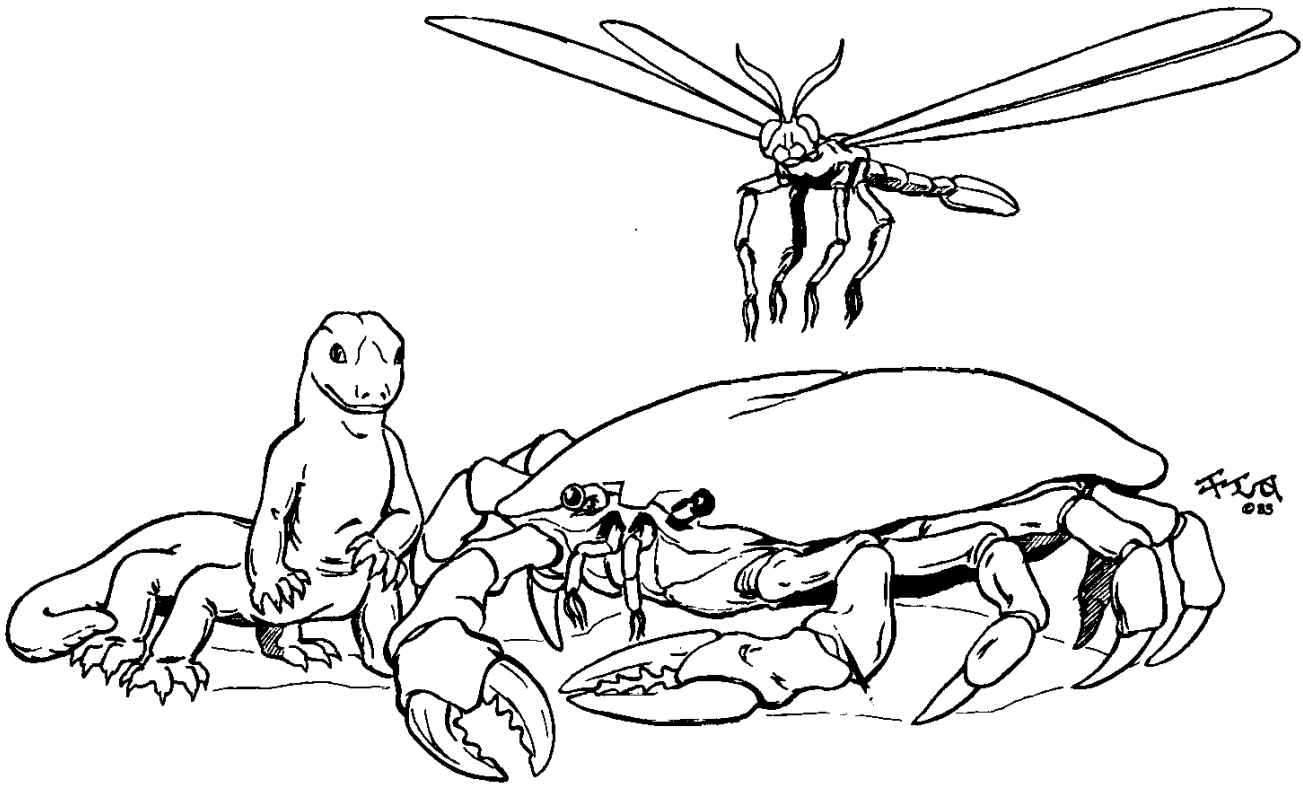
Expected Bonuses:

Accuracy	=	+22.5%
Attack	=	+32.5%
Damage Bonus	=	+1D6/1D3
Dodge	=	+11.5%
Hit Points	=	23
Knowledge	=	+5.5%
Luck	=	12
Manipulation	=	+28.5%
Observation	=	+5%
Parry	=	+18.5%
Persuasion	=	+0.75%
Stealth	=	+12.5%

Armor = 2 point hide (vs energy and impact)

Expected mass = 156 kilograms (334 lbs)

Natural Weapons' Damage: bite — 2D4
kicks — 1D6+1

**STAGE 2**

Char.	Dice	Expected	Species Maximum
STR	2D6	7	14
INT	[Old] +2	15	24
WIL	[Old]	10.5	21
CON	2D6+6	13	21
END	4D10+4	25	49
DEX	4D6+6	20	35
CHA	3D6	10.5	21
LEN	90+3D10	105.5	124
BLD	2D4	5	10
SIZ	---	12	15 (14 rollable maximum)
TSC	[Old] +4	6	N/A
TPR	[Old] x2	12	N/A

Expected Bonuses:

Accuracy	=	+28.5%
Attack	=	+24.5%
Damage Bonus	=	0
Dodge	=	+28.5%
Hit Points	=	12
Knowledge	=	+9.5%
Luck	=	13
Manipulation	=	+20%
Observation	=	+9%
Parry	=	+27.5%
Persuasion	=	+1.75%
Stealth	=	+44.5%

When the Dakti develops from Stage 1 to Stage 2, all skills requiring physical manipulation are reduced to base.

Armor = Chitin (6 points vs impact, 12 points vs lasers, 0 points vs non-laser energy weapons)

Expected mass = 17 kilograms (38 lbs)

Natural Weapons' Damage: bite - 1D4
sting - 1D6+1 + poison (equal to the CON of the Stage 2 Dakti in strength). All Dakti are immune to this poison.

STAGE 3

Char.	Dice	Expected	Species Maximum
STR	[Old] x2	14	28
INT	[Old] +2	17	29
WIL	4D6+3	17	32
CON	2D6+6	13	21
END	4D10+7	29	52
DEX	[Old] -6	14	28
CHA	3D6	10.5	21
LEN	[Old] x2	211	247
BLD	8D6	28	56
SIZ	---	30	43 (39 rollable maximum)
TSC	[Old] x4	24	N/A
TPR	[Old] x2	24	N/A

Expected Bonuses:

Accuracy	=	+27%
Attack	=	+30%
Damage Bonus	=	+1D4/1D2
Dodge	=	+9%
Hit Points	=	26
Knowledge	=	+20%
Luck	=	17
Manipulation	=	+35%
Observation	=	+26%
Parry	=	+8.5%
Persuasion	=	+9.25%
Stealth	=	-6%

When the Dakti develops from Stage 2 to Stage 3, all skills requiring physical manipulation are reduced to base values.

Armor = 6 point exoskeletal plate (all weapons). For each year after the completion of the transformation to Stage 3, add 1D3 points of armor protection. Each point of armor increases the mass carried by the character by 15 kilograms, but does not increase the maximum allowable carrying capacity. Once the added armor is sufficiently heavy to reduce ENC to zero, the character is assumed to no longer be mobile, and will die of 'old age' within one year.

Expected mass = 176 kilograms

Natural Weapons' Damage: claws (2) - 2D6
bite - 1D8+1
kick - 1D4+1

9.2.4.1 BRIEF BACKGROUND

The Dakti have three distinctly different body types over the course of their lives. They begin their lives as a sexually neuter hexapodal creature (Stage 1), reptilian in appearance (using four locomotory appendages and two manipulatory appendages). After between 19 and 24 terrestrial years in this form (18+1D6 years), they will metamorphose into a female insectoid flyer type (Stage 2) with four manipulatory appendages and two locomotory appendages – the double wings. The female of the species resembles nothing terrestrial so much as a giant dragonfly. After between 13 and 28 terrestrial years (3D6 + 10 years) in the female flyer form, the final metamorphosis takes place to an armored crablike male (Stage 3), who lives until the constant accretion of shell material in his exoskeletal armor crushes him (as it is expected to do in approximately three years).

The Dakti homeworld, Shurala, is a subterrestrial world similar to Mars orbiting a G1 main sequence star at a mean distance of 1.49 Astronomical Units (roughly 139 million miles).

In the neuter form, the Dakti are omnivorous. In the adult female form, they are carnivorous. As elderly, and nearly sedentary males, the Dakti are herbivorous. In the early neuter and the elderly male forms, the Dakti are plantigrade. In the adult female form, they are flyers and have redirected the use of the four extra available appendages to manipulatory functions.

Lines of descent are traced through the neuter line in Dakti societies (see Reproductive methods for further explanation).

The Dakti are monogamous, females remaining with one male until he dies or they themselves metamorphose into males. Individuals whose partners die or metamorphose will, however, select new mates.

There are three 'governments' on each Dakti world. The Iwo (the neuter form), the Rota (the elderly male form) and the Tawo (the adult female form) each have separate governments. The governors of the Tawo (who are all Rota) select those among the Tawo who will rule the Iwo. These Tawo then select those among the Iwo who will constitute the governing body for the Rota. And these Iwo in turn select the Rota who will govern the Tawo. The precise nature of the individual 'governments' varies from world to world, but the general selection process of the governors does not. Political scientists from other less 'enlightened' Hegemonic races have been known to leave Dakti worlds, shaking their heads in anguish and/or disgust.

9.2.4.1.1 Ancient weapons of the Dakti

The spikeball is a spiked metal ball at the end of a long metal chain. It is a class H2 type BE weapon 4.0 meters in length with a mass of 3 kilograms. It is a 12 hit point weapon, does 2D6+1 damage, and its training costs are as follows: 100/200/400/800/1200. A spikeball costs 25 smu.

Fangweb is a net woven with the equivalent of barbed wire. It is a class I2 type SE weapon 2.5 meters in length with a mass of 2.8 kilograms. It is a 10 hit point weapon, does 2D4 damage, and its training costs are as follows: 150/300/600/900/1200. A fangweb costs 20 smu.

9.2.4.2 NAMES AMONG THE DAKTI

The Dakti have been telepathic throughout their existence as a species. And, perhaps as a result, the procedure of naming individuals has died out. For purposes of identification in official documents or when dealing with offworlders, each Dakti is assigned a unique numerical identification code.

9.2.4.3 THE DAKTI LANGUAGES

Dakti languages are derived from the idea codes employed in the Dakti telepathic communications. They are used only for dealing with the ideas and concepts involved in single activities. All Dakti will speak and read all the Dakti languages at INT x 6 and INT x 5 respectively.

9.2.4.3.1 Barakiim

This is the language of conflict, battle, violence and aggression. It is a language heavy in complicated insults, and use of this language with a Dakti will virtually guarantee either that it will surrender or attack.

9.2.4.3.2 Makaba

This is the language of science and mathematics among the Dakti. No Dakti would consider entering any scientific field unless its knowledge of this language (both written and 'spoken') was above the 75% skill level.

9.2.4.3.3 Miurlaral

This is the language of trade and commerce among the Dakti. All commercial contracts and legal documents, in order to be honored by Dakti, must be translated into this language. Any offworld merchant wishing to do business with the Dakti must be able to communicate in

this language as well as L'Doran Universal or be prepared to pay highly for the use of a translator.

9.2.4.3.4 Sukuda

This is the language of love and affection.

9.2.4.4 THE DAKTI OUTLOOK

- (1) There is a passion for work, study, and research.
- (2) The five cardinal virtues are: honesty, courage, curiosity, obedience to duty, and tenacity.
- (3) Strength of will and character, and intelligence are also considered important.
- (4) Only virtue justifies power over another intelligent individual.
- (5) Virtue is an end in itself, not merely a means to an end.
- (6) There is a basic natural law governing all intelligent life forms.
- (7) Under this law, all intelligent life forms must be treated equally, even though they are manifestly unequal in other ways.

Attitudes of the Dakti Upper/Middle class

Characteristic	Dakti Attitude
'Human' equality	Fallacy
World view	Optimistic
Dignity	Basic Virtue
Poverty	No discernable attitude
National Memory	Long
Galactic Domination	Incomprehensible

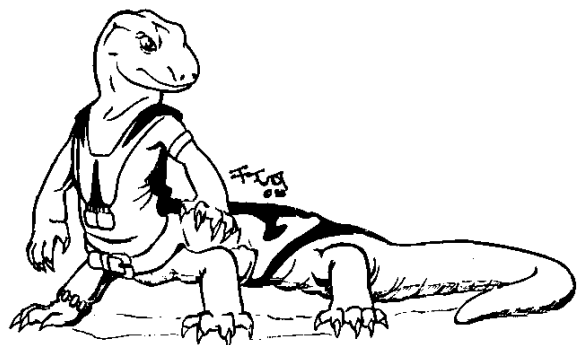
Attitudes of the Dakti Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	Reason and Logic
Most great individuals receive	Respect
Hero image	The scientist
Individualism	A virtue, but not the only virtue.
Primitive masses are	To be cared for, as youngsters are.
Sophisticated, educated aliens evoke	Respect
Ambition in others	is expected
Greatest Weakness	Inflexibility and lack of adaptability in the face of rapidly changing conditions.
Attitude toward others' culture	Interest
Dilettanteism	Is its own reward
Leisure	A worthwhile goal, but not the only worthwhile goal.

9.2.4.5 DAKTI PHYSICAL CHARACTERISTICS

(1) Gravitational Norm and Tolerance Range: 0.38 gs, 0-0.8 gs, max 2 gs for Stage 2. Stage 1 and Stage 3 Dakti are able to stand up to 3 and 5 gs respectively for brief periods.

If the maximum g loading is exceeded for a Stage 2 Dakti, damage may be done directly to CON. For each melee round after the first that the Dakti is subjected to an acceleration of greater than 2 gs, the Dakti will be subjected to an attack vs CON of strength N, where N is the number of tenths of a g greater than 0.8 to which the Dakti is subjected. Thus, if a Stage 2 Dakti is subjected to 2.3 gs for three melee rounds, it will be subjected to attacks vs CON of strength 15 in the second and third melee rounds. Stage 1 and Stage 3 Dakti may also be damaged by high g loadings, but the damage is less and for higher gs only. For Stage 1 Dakti, N is the number of tenths of a g greater than 1.2 to which the Dakti is subjected, and for a Stage 3 Dakti, N is the number of tenths of a g greater than 2.0 gs to which he is subjected.



- (2) Atmospheric Norm and Variation Tolerance: 20-120 mm Hg Oxygen, 5-20 mm Hg Water Vapor, 0.3 atmospheres.
- (3) Temperature Range Norm and Tolerance: -30 to +10 degrees C mean; -60 to +25 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: Stage 1: 0-25 lumens per square centimeter, Stage 2: 0-15 lumens per square centimeter, Stage 3: 0-50 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: Stage 1: 4'4" - 7'8", Stage 2: 3' - 4', Stage 3: 6'-8'.
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.02 rem steady state (per week), less than 80 rem short term.
- (8) Sensory Types, location, and sensitivities:
 - (8A) Electromagnetic:
 - Coarse: Stage 1 and 2: 7,000-10,000 Angstroms; skin, Stage 3: 7,000-14,000 Angstroms; special heat sensing organs.
 - Fine: 4,500-7,000 Angstroms - color vision; eyes.
 - (8B) Pressure Differential:
 - Remote: 20-24,000 cycles; Stages 1 and 3 (ears), Stage 2 (antennae).
 - Contact: Stages 1 and 2: skin, Stage 3: trigger spines on carapace.
 - (8C) Chemosensing:
 - Coarse: Depends on substance; skin, tongue.
 - Fine: Stage 1: Nasal cavity, tongue; Stage 2: chemosensors distributed over surface of body; Stage 3: lining of mouth and tongue only
 - (8D) Damage Detection:
 - Corrosion: Stages 1 and 2: skin; Stage 3: trigger spines on carapace.
- Other: internal electromagnetic nervous system.
- (8E) Texture Sensing: Stage 1: skin; Stage 2: specialized antennae, and skin surface; Stage 3: specialized fine trigger spines on inner surface of manipulatory claws.
- (8F) Psi senses: Telepathic communications to a distance of 10 meters per point of TSC.
- (8G) Other: Localized heat sensing capability in Stage 3 similar to that found in certain terrestrial snakes. In Stage 2, ability to identify polarization of light and presence and strength variation in the local planetary magnetic field.
- (9) Substances absorbed: Oxygen, other creatures, plants, water, miscellaneous trace elements. Omnivorous in Stage 1, carnivorous in Stage 2, herbivorous in Stage 3.
- (10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.
- (11) Reproductive Methods: The female form produces eggs which are fertilized by the male form and incubated in a special pouch by the neuter form. The egg is inserted by the female using a specialized hypodermic like organ. The egg-thing develops into a small neuter form individual after 250 days in the 'parent' neuter's pouch.
- (12) Body shape and Natural Weapons: Varies with stage of development. Stage 1: fanged, centauroidal hexapod; teeth, legs; Stage 2: insectoid flyer; mandible, stinger; Stage 3: crablike; claws mandible, legs.
- (13) Periodic Functions: 24-30 hour wake/sleep cycle, diurnal species; females produce eggs seasonally (one to three eggs per breeding season).
- (14) Non-sensory Psi Functions: Varies with individual.

Expected Bonuses:

Accuracy	=	+9.5%
Attack	=	+9%
Damage Bonus	=	0
Dodge	=	+10%
Hit Points	=	16
Knowledge	=	+5.5%
Luck	=	12
Manipulation	=	+8.25%
Observation	=	+5%
Parry	=	+6.25%
Persuasion	=	+0.75%
Stealth	=	+11.5%

Armor = 0
 Expected mass = 69 kilograms (152 lbs)

Natural Weapons' Damages: Bite - 1D6
 claws on hands - 1D4
 claws on feet - 1D6+1



9.2.5.1 BRIEF BACKGROUND

The H'Reli are a bipedal felinoid species. They look like housecats with oversized braincases that have grown to human size and have assumed a bipedal gait. And their personalities seem similar to those of twice week old kittens.

The H'Reli homeworld is a terrestrial type world with a surface gravity 1.31 times that of Earth. The homeworld, Syind, orbits an F5 main sequence star at a distance of 1.59 Astronomical units (roughly 149 million miles) and is, apart from its higher surface gravity, a twin of Earth.

The H'Reli are descended from a purely carnivorous felinoid species similar to the house cat in appearance (though considerably larger, of course). The social organization of this pre-intelligent life form on Syind was similar to the lion pride on Earth, and the H'Reli are (perhaps in consequence) less gregarious than humans.

Descent is traced through the maternal line (as precise determination of the paternal line is frequently difficult, if not downright impossible). There is no particular sexual discrimination in the society however - anyone may attempt to rise to as high a position as he or she desires (however, the H'Reli are not as power hungry a species as humans).

H'Reli are polygamous by nature and seldom even make a pretense of mating for life. Though they may tend to prefer particular mates for long periods, they are by no means tied to them - either by biology or social convention. Virtually every form of polygamous or polyandrous marriage system ever considered by humans is both practiced and socially accepted on H'Reli worlds.

9.2.5 H'Reli

Char.	Dice	Expected	Species Maximum
STR	3D6	10.5	21
INT	2D6+6	13	21
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10	22	44
DEX	3D6+2	12.5	23
CHA	3D6	10.5	21
LEN	6D20+100	163	227
BLD	3D4+2	9.5	18
SIZ	---	19	28 (26 rollable maximum)
TSC	RdD6	0	N/A
TPR	1D4+1	3.5	N/A

RdD6 - Roll 1D6. On a roll of 1-5, record a 0. On a roll of 6, record a 1.

There is no true central governing body for the H'Reli worlds. The H'Reli being almost natural born anarchists, no H'Reli Napoleon has ever succeeded in uniting a single world, let alone the entire sprawling mass of H'Reli occupied colony systems.

The H'Reli became a member race of the Hegemony during the early years of the Third Expansion. As a race, they had successfully resisted all attempts by the Altani to subjugate them during the Dominate Phase of the Hegemony in the years of the Second Expansion.

The H'Reli have maintained a representative on the Central Committee since the days of their admission to the Hegemony in the early part of the Third Expansion.

9.2.5.1.1 Ancient weapons of the H'Reli

The slicewhip is a flat leather strap attached to a short handle with razor sharp segmented blades running the length of the strap. A spiked metal ball is often attached to the end of the strap to add to the mass. It is a class H1 type SE weapon 2.0 meters in length with a mass of 2.0 kilograms. It is a 12 hit point weapon, does 1D8+1 damage, and its training costs are as follows: 125/275/600/875/1150. A slicewhip costs 52 smu.

The stranglecord is a H'Reli assassin weapon; a fine plastic cable attached to two wooden handles, it is difficult to detect. It is a class I2 type SE weapon with a length of 1.0 meters and a mass of 0.3 kilograms. It is a 10 hit point weapon and does 1D6 damage. Once the stranglecord is wrapped about a location, however, the wielder may inflict 1D6 damage to that location at 4 AP intervals (for three times per melee round in the basic combat system) without making additional attack rolls. The training costs for this weapon are as follows: 125/250/375/500/650. A stranglecord costs 5 smu.

9.2.5.2 COMMON H'RELI NAMES

Ariayowlia, Sriluowluro, Yealuralara, Yealuras, Yealuwoluro, Yewlira.

Other names should be created along the same lines — polysyllabic and heavy on vowels.

9.2.5.3 H'RELI LANGUAGES

There are four major languages spoken on Syind and on the Inner Ring Colonies of Tarashal and Sharalural. They are, in decreasing order of the number of individuals speaking them: (1) Chara, (2) Liwolorow, (3) Tiluwura, and (4) Lilurata.

Chara and Liwolorow are also spoken on many of the Outer Colonies (roughly 30% of the population speaking one or the other of these two languages) and at least half the population of the key industrialized H'Reli worlds will speak Chara to some degree.

Outside the Homeworld, the first two extrasolar H'Reli colonies, and the key industrialized H'Reli worlds, linguistic chaos reigns. On the two hundred H'Reli frontier worlds there are over eighteen hundred mutually incomprehensible languages and over thirty thousand distinct dialects.

9.2.5.4 THE H'RELI OUTLOOK

(1) There is a passion for physical pleasure and relaxation (they are hedonists and are, by the by, polygamous by nature).

(2) The five cardinal virtues are: a sense of humor, a quick wit, courage, honor, and curiosity.

(3) Strength of will and character, and tenacity are also considered important.

(4) No virtue justifies power over another intelligent being. Government is not reason, nor eloquence. It is blind, unreasoning force.

(5) Virtue is a means to an end, not an end in itself. The end being enjoyment of one's self and one's environment.

(6) There is a basic natural law governing all intelligent life forms.

(7) Under this law, all intelligent life forms are basically equal (though some are more equal than others . . .)

Attitudes of the H'Reli Upper/Middle class

Characteristic	H'Reli Attitude
'Human' equality	Fallacy
World view	Optimistic (Hedonist)
Dignity	'asking to be deflated'
Poverty	Unpleasant
National Memory	virtually non-existent
Galactic Domination	Psychologically unprepared to accept.

Attitudes of the H'Reli Elite

Characteristic	Attitude
Power evokes	Ridicule
Greatest political force	Oratorical Skill
Most great individuals receive	Pity
Hero image	The jester
Individualism	Exalted
Primitive masses are	Suckers
Sophisticated, educated aliens evoke	Wariness
Ambition in others	Evokes ridicule if extremely strong.
Greatest Weakness	Unity
Attitude toward others' culture	Ridicule
Dilettanteism	Expected
Leisure	A worthwhile goal

9.2.5.5 H'RELI PHYSICAL CHARACTERISTICS

(1) Gravitational Norm and Tolerance Range: 1.31 g, 0-3 g, max 5g.

(2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.49 atmospheres.

(3) Temperature Range Norm and Tolerance: -2 to + 28 degrees C mean; -12 to +38 degrees C daily.

(4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.

(5) Size Range: 3'3" to 8'1" tall

(6) Chemical Base: Carbon

(7) Particle Radiation Tolerance: Less than 0.04 rem steady state (per week), less than 100 rem short term.

(8) Sensory Types, location, and sensitivities:

(8A) Electromagnetic:

Coarse: 7,000-10,000 Angstroms; skin

Fine: 2,800-6,000 Angstroms — color vision; eyes

(8B) Pressure Differential:

Remote: 20-31,000 cycles; ears

Contact: skin, muzzle hairs

(8C) Chemosensing:

Coarse: Depends on substance; skin, tongue

Fine: Nasal cavity (slightly more sensitive than human), tongue

(8D) Damage Detection:

Corrosion: skin

Other: internal electromagnetic nervous system

(8E) Texture Sensing: skin

(8F) Psi senses: varies with the individual

(8G) Other: No other senses

(9) Substances absorbed: Oxygen, other creatures, fruit, water, miscellaneous trace elements. Carnivorous.

(10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.

(11) Reproductive Methods: Typical mammalian; gestation period 290 days (single birth).

(12) Body shape and Natural Weapons: Felinoid, bipedal, tailed; hands and feet and non-retractile claws in toes.

(13) Periodic Functions: day/night sleep/wake cycle (nocturnal species); 32 day menstrual cycle.

(14) Non-sensory Psi Functions: Varies with individual.

9.2.6 Human

Char.	Dice	Expected Species Maximum	
	M/F		
✓STR	3D6	10.5	21
INT	2D6+6	13	21
✓WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10	22	44
✓DEX	3D6	10.5	21
✓CHA	3D6	10.5	21
LEN	110+6D20/100+6D20	173/163	237/227
✓BLD	3D6/3D4+1	10.5/8.5	21/17
SIZ	---	20/19	30/28(28/26 rollable maxima)
TSC	RdD6	0	N/A
TPR	1D4+1	3.5	N/A

Expected Bonuses:

Accuracy	=	+5.5%
Attack	=	+5%
Damage Bonus	=	0
Dodge	=	+5%/+7%
Hit Points	=	17/16
Knowledge	=	+5%
Luck	=	12
Manipulation	=	+5.75%
Observation	=	+5%
Parry	=	+1.25%/+2.25%
Persuasion	=	+0.75%
Stealth	=	+5.5%/+7.5%

Armor = 0

Expected mass = 80 kilograms (176 lbs) for males, 69 kilograms (151 lbs) for females.

Natural Weapons' Damage: fist – 1D3
kick – 1D6
bite – 1D4

RdD6 – Roll 1D6. On a roll of 1-5, record a 0. On a roll of 6, record a 1.

9.2.6.1 BRIEF BACKGROUND

Humans in the Hegemony are the descendants of survivors of human colony worlds bypassed during the disastrous Hegemony-Empire Wars of the fourth and fifth centuries of Earth's atomic era. They are descended from Gulag colonists – political dissidents and scientific intellectuals who defied the Terran Imperial Government in one way or another. As such, they feel little if any animosity towards the Hegemonic races that smashed the Terran Empire.

They are a mixed bunch, living under many and varied governmental systems – from the hereditary monarchy of New Paris to the communist dictatorship of Novaya Amerika, from the parliamentary democracy of Novaya Rossiya to the anarchy of Bakunin's Home.

These human worlds and their inhabitants became members of the Hegemony as they were rediscovered (or as they rediscovered Hegemonic worlds) during the current era, the Fifth Expansion. The worlds of the Commonality of Man have no representative on the Central Committee at this time – though there is some hope of a representative being accepted in the not too distant future. For the moment, the Commonality lies within the joint jurisdictions of three of the major races' subgovernments: The Synd Combine (the H'Reli), the Ata'an Assembly, and the Suzrainty of Han (this last government retains only the name of the old Suzrainty of Han of the Second Expansion).

9.2.6.2 HUMAN LANGUAGES

Many of the languages of Old Earth still survive. The principal languages in use throughout the Commonality of Man are: (1) Amris, (2) Arabic, (3) Cantonese, (4) English, (5) French, (6) German, (7) Hebrew, (8) Japanese, (9) Mandarin, (10) Russian, (11) Spanish. Of these languages, all save Amris (the most commonly spoken) are virtually identical to their modern counterparts. Amris is the old lingua franca of the Terran Imperial period – it is a mixture of English and Russian (speakers of these two languages may begin Amris at half their skill levels in these two languages, and speakers of Amris may begin their English and Russian speaking skill at half their Amris speaking skill).

9.2.6.3 THE HUMAN OUTLOOK

The human outlook on the universe has not changed all that much up to this era of exploration and exploitation. Humans have come to accept the fact of the existence of other intelligent life forms in the universe, and seem none the worse for it.

9.2.6.4 HUMAN PHYSICAL CHARACTERISTICS

- (1) Gravitational Norm and Tolerance Range: 1.00 g, 0-1.5 g, max 5g.
- (2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.00 atmospheres.
- (3) Temperature Range Norm and Tolerance: 0 to +30 degrees C mean; -10 to +40 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: 3' to 8'
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.03 rem steady state (per week), less than 100 rem short term.

(8) Sensory Types, location, and sensitivities:

(8A) Electromagnetic:
Coarse: 7,000-10,000 Angstroms; skin
Fine: 4,000-7,000 Angstroms – color vision; eyes

(8B) Pressure Differential:
Remote: 20-20,000 cycles; ears
Contact: skin

(8C) Chemosensing:
Coarse: Depends on substance; skin, tongue
Fine: Nasal cavity, tongue

(8D) Damage Detection:
Corrosion: skin
Other: internal electromagnetic nervous system

(8E) Texture Sensing: skin

(8F) Psi senses: varies with individual

(8G) Other: No other senses

(9) Substances absorbed: Oxygen, other creatures, plants, water, miscellaneous trace elements. Omnivorous.

(10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.

(11) Reproductive Methods: Typical mammalian; gestation period 9 months (single birth).

(12) Body shape and Natural Weapons: Bipedal tailless primate; hands, feet, finger and toe nails, teeth.

(13) Periodic Functions: 24-30 hour day/night sleep cycle (diurnal); 28-35 day female menstrual cycle.

(14) Non-sensory Psi Functions: Varies with individual.

9.2.7 Korli

Char.	Dice	Expected	Species Maximum
STR	2D6+3	10	18
INT	2D6+6	13	21
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D8	18	36
DEX	3D6+6	16.5	28
CHA	3D6	10.5	21
LEN	3D10+96	112.5	130
BLD	2D6+3	10	18
SIZ	---	14	18 (17 rollable maximum)
TSC	1D4-1	1.5	N/A
TPR	1D12+2	8.5	N/A

Expected Bonuses:

Accuracy	=	+17.5%
Attack	=	+16.5%
Damage Bonus	=	0
Dodge	=	+17.5%
Hit Points	=	13
Knowledge	=	+5.5%
Luck	=	12
Manipulation	=	+13.75%
Observation	=	+5%
Parry	=	+19%
Persuasion	=	+0.75%
Stealth	=	+20.5%

Armor = 1 point fur (impact only)

Expected mass = 27 kilograms (60 lbs)

Natural Weapons' Damage: fist – 1D3
bite – 1D4
kick – 1D4+1

9.2.7.1 BRIEF BACKGROUND

The Korli are a furred, bipedal, tailed, intelligent mammalian species resembling nothing so much as oversized ground squirrels. Despite their similarity in appearance to that particular rodent, they are both omnivorous and highly aggressive. The volatility of the Korli temperament is known throughout the Hegemony.

Home, or Homeworld, is a world virtually indistinguishable from Earth. The surface gravity is 1.01 times that of Earth. The primary is a G1 main sequence star that is slightly cooler than the average G1 – making it a near twin of Sol, Earth's primary. The mean orbital distance from the primary is 93 million miles – the same as for Earth. Its atmos-



phere is an Oxygen-Nitrogen one, with pressure at sea level of 1.03 terrestrial atmospheres. Home is a twin Earth, for all intents and purposes.

Though an argumentative and quarrelsome lot, the Korli are still an extremely gregarious species — as their sprawling megalopolis clearly indicate.

The normal marriage arrangement among the Korli is serial polygamy. That is, they do not have more than one mate at any one given time, but over the course of a lifetime it is socially acceptable (in fact, expected) to have four, five, or even six or more mates. Lines of descent are determined by adoption of the Korli at the time of his maturity by the individual to whom he will serve as successor.

The Korli worlds were considered fair game by H'Reli, Altani, and Uquoi during the turbulent years of the Second Expansion, and most of them (including Homeworld) were conquered or taken as battle spoil by one or the other of the three major races during the Second Expansion. The Korli have no representative on the Central Committee, and are forced to speak through their protector states (the Suzrainty of Han and the Syind Combine).

9.2.7.1.1 Ancient weapons of the Korli

The doublespear is a spear with leaf shaped points at each end. It is a class G2 type T weapon with a length of 1.7 meters and a mass of 1.7 kilograms. It is a 28 hit point weapon and does 1D12 damage. Training costs for the doublespear are as follows: 125/250/500/750/1000. A doublespear costs 45 smu.

The handblade is simply two curved axe blades mounted on opposite sides of a handgrip. Two handblades may be used simultaneously. It is a class C1 type S weapon with a length of 0.3 meters and a mass of 1.0 kilograms. It is a 15 hit point weapon, does 1D6+1 damage, and its training costs are as follows: 75/150/300/450/600. One handblade costs 18 smu.

9.2.7.2 NAMES AMONG THE KORLI

There is no such construct as separate family and given names among the Korli. The full identification of the individual is given in a single name (with a suitable name change when the individual reaches adulthood). The only constraint on names is that male names end in —at, and female names end in —ak.

A few sample names follow: Bakriligat, Braditak, Creymilikak, Gradkeditak, Kekirikak, Kraliak, Ragarigarikat, Satilirimat, Tatikat, Taktikat.

9.2.7.3 THE KORLI LANGUAGES

9.2.7.3.1 Rarikan

The primary Korli language: 60% of the population speaks it as their

native language. There are four distinct dialects: Rarikat, the dialect spoken by males to other males; Rarikak, the dialect spoken by females to other females; Riraket, the dialect spoken by males to females; and Rirektak, the dialect spoken by females to males.

9.2.7.3.2 Sharukeni

After Rarikan, this is the most commonly spoken language among the Korli. Twenty-four percent of the population speaks Sharukeni as their native language. There are two distinct dialects of Sharukeni: Larumet, the dialect spoken by males and Hrgena, the dialect spoken by females.

9.2.7.3.3 Ishirla

The holy tongue of the religious writings of the Korli, and is spoken as a native language by only 6% of the population.

9.2.7.3.4 Tralik

Derived from one of the earlier attempts by the Korli at an artificial logical language (similar to loglan in intent), Tralik is spoken as a native language by 5% of the population.

9.2.7.3.5 Chench

The remainder of the Korli population speaks one or another of a series of mutually comprehensible dialects of this language.

9.2.7.4 THE KORLI OUTLOOK

(1) There is a passion for work, obedience to duty, arguing, and power politics.

(2) The five cardinal virtues are: honesty, courage, honor, obedience to duty, and tenacity.

(3) Strength of will and character, and being victorious are also considered important.

(4) Only virtue justifies power over another intelligent being.

(5) Virtue is an end in itself, not merely a means to an end.

(6) There is a basic natural law governing all intelligent life forms.

(7) Under this law, all intelligent life forms are basically equal (but some are more equal than others . . . and its better to be more equal).

Attitudes of the Korli Upper/Middle class

Characteristic	Korli Attitude
'Human' equality	Fallacy
World view	Pessimistic
Dignity	Basic Virtue
Poverty	Vice
National Memory	Extremely short
Galactic Domination	Eager to accept

Attitudes of the Korli Elite

Characteristic	Attitude
Power evokes	Envy
Greatest political force	Brute force
Most great individuals receive	Envy
Hero image	The great and powerful leader.
Individualism	Exalted
Primitive masses are	Victims
Sophisticated, educated aliens evoke	Wariness
Ambition in others	is expected
Greatest Weakness	excess of aggressiveness
Attitude toward others' culture	Interest
Dilettanteism	Is its own reward
Leisure	A worthwhile goal, but not the only worthwhile goal.

9.2.7.5 KORLI PHYSICAL CHARACTERISTICS

(1) Gravitational Norm and Tolerance Range: 1.01 g, 0-1.5 g, max 3g.

(2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.03 atmospheres.

(3) Temperature Range Norm and Tolerance: 0 to +30 degrees C mean; -10 to +40 degrees C daily.

(4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.

(5) Size Range: 3'3" to 4'2"

(6) Chemical Base: Carbon

(7) Particle Radiation Tolerance: Less than 0.03 rem steady state (per week), less than 100 rem short term.

(8) Sensory Types, location, and sensitivities:

- (8A) Electromagnetic:
Coarse: 7,000-10,000 Angstroms; skin
Fine: 4,000-7,000 Angstroms — color vision; eyes
- (8B) Pressure Differential:
Remote: 20-32,000 cycles; ears
Contact: skin, muzzle hairs
- (8C) Chemosensing:
Coarse: Depends on substance; skin, tongue
Fine: Nasal cavity (slightly more sensitive than human), tongue
- (8D) Damage Detection:
Corrosion: skin
Other: internal electromagnetic nervous system
- (8E) Texture Sensing: skin
- (8F) Psi senses: Telepathic communications to an average of 15 meters range (10 meters per point of TSC).
- (8G) Other: No other senses
- (9) Substances absorbed: Oxygen, other creatures, plants, water, miscellaneous trace elements. Omnivorous.
- (10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.
- (11) Reproductive Methods: Typical mammalian; gestation period 266 days (single birth).
- (12) Body shape and Natural Weapons: Tailed, furred bipedal fanged squirrel; teeth, hands, feet.
- (13) Periodic Functions: 24-30 hour wake/sleep cycle (diurnal species); 21-30 day female menstrual cycle.
- (14) Non-sensory Psi Functions: Varies with individual.

9.2.8 L'Drey

Char.	Dice	Expected	Species Maximum
STR	4D6	14	28
INT	2D6+9	16	25
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10	22	44
DEX	4D6	14	28
CHA	3D6	10.5	21
LEN	151+1D10	156.5	163
BLD	2D8+1	10	20
SIZ	—	18	22 (19 rollable maximum)
SIZ	2D6+1	8	16
TSC	4D10	22	N/A
TPR	4D10	22	N/A

Expected Bonuses:

Accuracy	=	+18.5%
Attack	=	+21.5%
Damage Bonus	=	+1D4/+1D2
Dodge	=	+18.5%
Hit Points	=	15
Knowledge	=	+11.5%
Luck	=	14
Manipulation	=	+20%
Observation	=	+11%
Parry	=	+13.5%
Persuasion	=	+2.25%
Stealth	=	+22.5%

Armor = 1 point fur (impact only)

Expected mass = 58 kilograms (128 lbs)

Natural Weapons' Damage: claws on hands — 1D3
teeth — 1D6
leg claws — 1D6 + 1

9.2.8.1 BRIEF BACKGROUND

The L'Drey are a bipedal vulpinoid telepathic species. They share common ancestors with the Altani. The Altani are the descendants of those telepaths who were sent out from the home system as colonists, the L'Drey are the descendants of those telepaths who were forced to flee pogroms against the telepaths in the home system of L'Dorai. And by the time the Altani returned to the home system to eliminate the parent species in the Final Wars, the L'Drey were long gone in their sub-light generation ships.

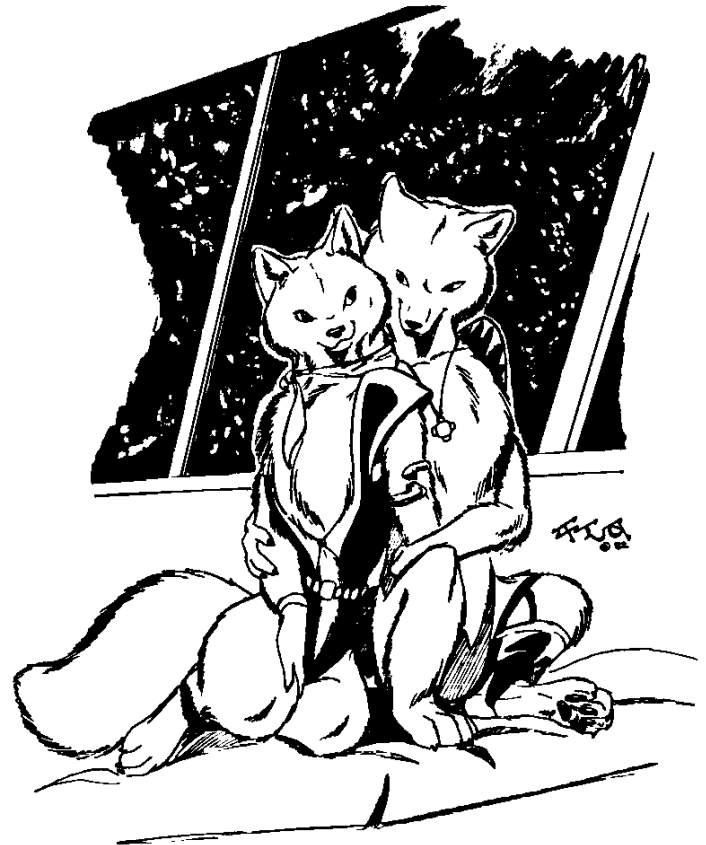
The L'Drey developed a workable FTL (faster than light) drive system for their spacecraft nearly a century after their planet bound brethren, the Altani, succeeded in doing so. And, where the Altani used

the drive first to return to their home system (eliminating all competitors there) and then to expand out to other extrasolar planets, the L'Drey used the drive to improve the capabilities of their gargantuan homeships.

The Altani remained planetbound, tied to the earth, the L'Drey became interstellar nomads. Living on their mile long homeships, stopping in starsystems only briefly to trade, the L'Drey became the gypsies of the starlanes. They developed a mercantile culture, and a free and loose attitude towards lawful authority.

The L'Drey no longer have a true homeworld. Their homes are their starships. And they are limited in their explorations only by their own sense of daring, and by time.

This starhopping ship living nomadism has resulted in minor changes among the L'Drey. Unlike the Altani, who are both by culture and biology monogamous, the L'Drey are now a polygamous species. Where the Altani mate for life, the L'Drey never do manage to settle down to a single mate. Lines of descent are traced through the maternal line, as the precise male line is usually a matter open to considerable question.



Apart from the behavioral changes, there is no obvious difference between the Altani and the L'Drey. They are still capable of interbreeding and producing fertile offspring, though the two varieties are on their way to becoming separate species.

Like their planet bound brethren, the Altani, the L'Drey are descended from a purely carnivorous species similar to the terrestrial red fox in appearance and the terrestrial wolf in social organization and behavior patterns. The L'Drey have been changed by the forces of their ship based life and have become somewhat more gregarious as a group than the Altani.

The L'Drey do not have a representative on the Central Committee nor do they want one. They have not undergone the periods of technological regression and collapse forced upon their planet bound brethren repeatedly in the last several millennia. The L'Drey, as a result, have access to technology considerably in advance of that of most of the rest of the Hegemony; and, typically, they are not particularly willing to share their knowledge for anything short of a truly ruinous price. Despite their lack of representation on the Central Committee, they are second only to the Altani in influence throughout the Hegemony.

All members of the current species are telepathic.

9.2.8.1.1 Ancient weapons of the L'Drey

As they share common ancestors with the Altani, they use much the same ancient weapons as the Altani: doublesword and clawfeet in particular. For detailed descriptions of these two weapons, see section 9.3.1.1.1, Ancient weapons of the Altani.

9.2.8.2 HOMESHIP DETERMINATION AND NAMES

The social factor given after each homeship name indicates the degree to which individuals of that homeship are given a head start in life. Social factor translates directly into an increased initial rank in the armed forces (on a one for one basis) and into a difference of 10,000 smu in initial capital per point of social factor in the case of merchants.

Homeship of Mother (and hence of character) Determination for L'Drey Player Characters:

1D100 roll	Homeship	Social Factor
01-02	Tyel	8
03-04	Ashata	8
05-07	Sirlo	6
08-10	Kala	6
11-13	Tyem	6
14-17	Tago	5
18-21	Sira	5
22-29	Siem	4
30-37	Akal	4
38-50	Tuu	4
51-62	Shierin	3
63-74	Tiaou	2
75-86	Chai	1

On rolls of 87-00, the character is the offspring of a mother of some other homeship of far lesser significance (social factor 0).

A Short list of common L'Dreyan Given names (and their meanings): Alis = Blade, Isan = Crystal, Larin = Justice, Lieaou = Dark/Darkness, Riai = Quiet/Silence, Sain = Mists, Shai = Light/Brightness, Shata = Stone, Shrin = Life, Sind = Blood, Tau = Fire.

Where [P1] is the homeship of the mother of the individual and [P2] is the homeship of the father chosen (not necessarily the true father, but rather the father of record), and [P3] is the given name of the character, the full name of the character would be [P1]-[P2] [P3]. Thus, for example, an offspring of a female from the Tyel with a father of record from the Ashata, with given name Shrin would be addressed as Tyel-Ashata Shrin. In the familiar form of the name, all save the first consonant (or consonant cluster) of [P1] and all save the first vowel, or consonant or consonant cluster of [P2] are dropped, and glottal stops inserted after the remaining consonants (or clusters). Thus, in the preceding example, Tyel-Ashata Shrin's name would become T'A'Shrin. Nicknames are common, and used at almost any excuse.

9.2.8.3 L'DREY LANGUAGES

9.2.8.3.1 Harasha

One of the languages of the Old Race Altani (the non-telepathic precursors of the current species). This is the most commonly spoken language among the L'Drey.

9.2.8.3.2 L'Doran Universal

Originally designed as a 'common' tongue for the modern Altani species, this language has been adopted as the 'official' language of commerce and diplomacy throughout the Hegemony.

9.2.7.3.3 Raika

The language of the elite of the central worlds of the Altani species — the homeworld, Han, and the first three colony worlds, L'Dyen III, Siru, and Illewoe. Ten percent of the L'Drey know this language.

9.2.8.4 THE L'DREY OUTLOOK

- (1) There is a passion for physical pleasure and relaxation tempered with a passion for doing one's duty.
- (2) The seven cardinal virtues are: wisdom, a sense of humor, a quick wit, courage, honor, obedience to duty, and curiosity.
- (3) Strength of will and character, and tenacity are also considered important.
- (4) Only these virtues justify power over another intelligent life form.
- (5) Virtue is a means to an end, not an end in itself.
- (6) There is a basic natural law governing all intelligent life forms.
- (7) Under this law, all intelligent life forms are basically equal (though some are more equal than others . . .)

Attitudes of the L'Dreyan Upper/Middle class

Characteristic	L'Dreyan Attitude
'Human' equality	Fallacy
World view	Optimistic (Hedonist)
Dignity	Basic Virtue
Poverty	Vice
National Memory	Long
'World' Domination	Psychologically unprepared to accept.

Attitudes of the L'Drey Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	Oratorical Skill
Most great individuals receive	Admiration
Hero image	The bard
Individualism	Exalted
Primitive masses are	Suckers
Sophisticated, educated aliens evoke	Wariness
Ambition in others	Highly approved, unless it becomes a real threat to the homeship or the L'Drey as a race.
Greatest Weakness	Unity
Attitude toward others' culture	Indebtedness
Dilettanteism	Unappreciated
Leisure	A worthwhile goal



9.2.8.5 L'DREY PHYSICAL CHARACTERISTICS

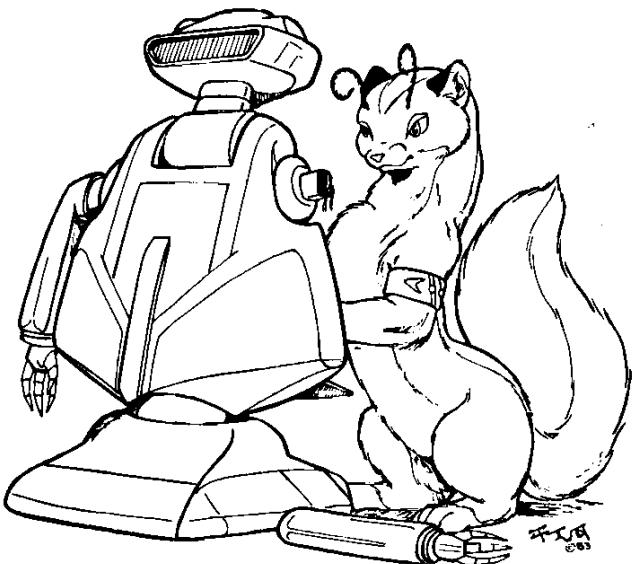
- (1) Gravitational Norm and Tolerance Range: 1.48 g, 0-3 g, max 5g.
- (2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.56 atmospheres.
- (3) Temperature Range Norm and Tolerance: -6 to +24 degrees C mean; -16 to +32 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: 5' to 5'4"
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.04 rem steady state (per week), less than 100 rem short term.
- (8) Sensory Types, location, and sensitivities:
- (8A) Electromagnetic:

- Coarse: 7,000-10,000 Angstroms; skin
 Fine: 2,800-6,000 Angstroms – color vision; eyes
- (8B) Pressure Differential:
 Remote: 20-28,000 cycles; ears
 Contact: skin, muzzle hairs
- (8C) Chemosensing:
 Coarse: Depends on substance; skin, tongue
 Fine: Nasal cavity (slightly more sensitive than human), tongue
- (8D) Damage Detection:
 Corrosion: skin
 Other: internal electromagnetic nervous system
- (8E) Texture Sensing: skin
- (8F) Psi senses: Telepathic communications to an average of 220 meters range (10 meters per point of TSC).
- (8G) Other: No other senses
- (9) Substances absorbed: Oxygen, other creatures, fruit, water, miscellaneous trace elements. Carnivorous.
- (10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.
- (11) Reproductive Methods: Typical mammalian; gestation period 322 days (single birth); seasonal sexual cycle.
- (12) Body shape and Natural Weapons: Vulpinoid (foxlike), bipedal, tailed; hands and feet and retractile claws in fingers.
- (13) Periodic Functions: day/night sleep/wake cycle (nocturnal species); 60 day menstrual cycle.
- (14) Non-sensory Psi Functions: Varies with individual.

9.2.9 Robots As Adventurers

Unlike most beings, the robots are not grown – they are designed. In addition, they may be expected to be altered with time – and far more easily than organic beings. The characteristic bases are as follows:

STR	10	(Costs 4000 smu per point of increase – no upper limit)
INT	13	(Cost of improvement is the difference in cost between the current internal computer and the desired computer)
WIL	10	
CON	–	
END	**	
DEX	13	(Costs 9000 smu per point of increase – no upper limit)
CHA	3D6	Species Maximum of 21
LEN	200	(Costs 500 smu per point to increase – no upper limit)
BLD	15	(Costs 1000 smu per point to alter – no upper limit)
SIZ	24	TSC 0; TPR 1



The costs for improvement are for guaranteed improvements – there is no training time spent, simply time spent replacing parts (1 day per point of characteristic improvement).

Robots are completely unaffected by stunner fire (of all kinds) and their resistance to damage depends solely upon the type of armor casing used. Jump shock does affect robots – and robot adventurers are always incapacitated for 6 minutes (three full turns) following every entry into or exit from jump space.

Robot brains may be placed in any of the variety of armored suits,

and the brain unit is assumed to be in the chest, abdomen, or head region (player's choice) or, at an additional cost of 50%, the computer brain may be distributed throughout the chest, abdomen, and head (requiring that all three locations be destroyed in order to 'kill' the robot). The starting armor type for robots is type 2 (with 10 points in all locations). Any improvement in armor type requires payment of the difference in cost between the current armor type and the desired armor type, plus a fee of 10% of this difference for 'labor'. Once armor has been penetrated, six (6) points further damage to the given location renders it non-functional. If the brain section is ever rendered non-functional, the character is 'dead' and cannot be revived. Other than destruction of the brain section (or sections) the robot cannot be 'killed'.

9.2.10 Sanchenzii

Char.	Dice	Expected	Species	Maximum
	M/F			
STR	3D6	10.5	21	
INT	2D6+6	13	21	
WIL	3D6	10.5	21	
CON	2D6+6	13	21	
END	4D10	22	44	
DEX	3D6	10.5	21	
CHA	3D6	10.5	21	
LEN	100+6D20/110+6D20	163/173	227/237	
BLD	3D4+1/3D6	8.5/10.5	17/21	
SIZ	---	19/20	28/30(28/26 rollable maxima)	
TSC	3D10	15.5	N/A	
TPR	3D10	15.5	N/A	

Expected Bonuses:

Accuracy	=	+5.5%
Attack	=	+5
Damage Bonus	=	0
Dodge	=	+7%/+5%
Hit Points	=	16/17
Knowledge	=	+5%
Luck	=	12
Manipulation	=	+5.75%
Observation	=	+5%
Parry	=	+2.25%/+1.25%
Persuasion	=	+0.75%
Stealth	=	+7.5%/+5.5%

Armor = 0 points

Expected mass = 69 kilograms (152 lbs) for males and 80 kilograms (176 lbs) for females.

Natural Weapons' Damage: claws on hands – 1D4
 bite – 1D6
 claws on feet – 1D6 + 1

9.2.10.1 BRIEF BACKGROUND

The Sanchenzii are a race of tailed furred felinoid bipeds strongly resembling terrestrial lions in appearance. The males are slightly smaller than the females, and have manes.

The homeworld of the Sanchenzii, Irilis, is a terrestrial type world, with a surface gravity of 0.98 gs. The atmosphere, like Earth's, is Oxygen-Nitrogen (Nitrogen – 78%, Oxygen – 21%, Argon 0.9%, 0.1% assorted other gases – the same composition as Earth's atmosphere), and the atmospheric pressure at sea level is 750 mm Hg (vs 760 mm Hg for Earth). There are eight continental land masses, covering 28% of the surface of the world (the rest being covered by ocean). The Sanchenzii homeworld orbits a G2 main sequence star at a mean distance of one Astronomical Unit.

The Sanchenzii are descended from a leonine species, and are pure carnivores (at least, as pure as anything is in the realm of biology). The ancestral species had a social organization similar to that of the lions whom the Sanchenzii so closely resemble in appearance. The modern Sanchenzii are plantigrade (walking on their feet, like humans and Bjora, as opposed to on their toes, like Altani and H'Reli).

In Sanchenzii society, the males of the species are the theoretical rulers. And, indeed, they do fill all of the figure-head positions within the business and governmental community. However, it is the collection of females supposedly subservient to each male who are the true rulers of the society – they do all the real work, and what is more important, they make all of the decisions.

The birth ratio of one male to six females has made polygamy the

standard in Sanchenzii society. Lines of descent are traced through the paternal line.

The Sanchenzii do not have a representative on the Central Committee. They are, for all intents and purposes, a client race of the Bjora.



9.2.10.1.1 Ancient weapons of the Sanchenzii

The axeflail is a curved axe head set at the end of a chain cable. It is a class I2 type SE weapon with a length of 1.2 meters and a mass of 1.9 kilograms. It is a 20 hit point weapon and it does 1D8 damage. The training costs for the axeflail are as follows: 100/200/400/600/800. An axeflail costs 30 smu.

The wristclaw is a wristband with four curved axehead blades set evenly about the band in line with the arm and perpendicular to the wristband. Two bands may be used simultaneously. It is a class C1 type S weapon with a length of 0.1 meters and a mass 0.4 kilograms. It is a 20 hit point weapon, does 1D4+1 damage and its training costs are as follows: 100/200/400/600/800. One wristclaw costs 30 smu.

9.2.10.2 NAMES AMONG THE SANCHENZII

As a child, each Sanchenzii is given a childish nickname for identification purposes (usually based upon some event or act by the child that took place shortly after his or her birth). This nickname, usually somewhat whimsical in nature, is generally decided upon by the father of the child (after consultation with the mother, of course). On reaching adulthood, the individual chooses his (or her) own name, based upon some characteristic or feature which the individual wishes to 'immortalize' in his adult name. A world class sprinter might, for example, choose the name 'Runs like the wind' or Windrunner, for example.

9.2.10.3 SANCHENZII LANGUAGES

The modern Sanchenzii are 'blessed' with having only one language which, with characteristic simplicity, they call Speech.

9.2.10.4 THE SANCHENZII OUTLOOK

(1) There is a passion for physical pleasure and relaxation among the males. Among the females, there is the same hedonistic bent, but it is tempered with a passion for doing one's duty.

(2) The six cardinal virtues are: wisdom, a sense of humor, a quick wit, courage, honor, and curiosity.

(3) Strength of will and character, and tenacity are also considered important.

(4) Only these virtues justify power over another intelligent life form.

(5) Virtue is a means to an end, not an end in itself.

(6) There is a basic natural law governing all intelligent life forms.

(7) Under this law, all intelligent life forms are basically equal (though some are more equal than others . . .)

Attitudes of the Sanchenzii Upper/Middle class

Characteristic	Sanchenzii Attitude
'Human' equality	Fallacy
World view	Optimistic (Hedonist)
Dignity	Basic Virtue
Poverty	Vice
National Memory	Short
Galactic Domination	Eager to accept, but psychologically unprepared to deal with the reality.

Attitudes of the Sanchenzii Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	The rule of law
Most great individuals receive	Admiration
Hero image	The great warrior
Individualism	Exalted
Sophisticated, educated aliens evoke	Wariness
Ambition in others	Not approved of
Greatest Weakness	Unity
Attitude toward others' culture	Indifference
Dilettanteism	Unappreciated
Leisure	In the end, it is the only worthwhile goal.

9.2.10.5 SANCHENZII PHYSICAL CHARACTERISTICS

(1) Gravitational Norm and Tolerance Range: 0.98 g, 0-1.5 g, max 3g.

(2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 0.99 atmospheres.

(3) Temperature Range Norm and Tolerance: 0 to +30 degrees C mean; -10 to +40 degrees C daily.

(4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.

(5) Size Range: 3' to 8'

(6) Chemical Base: Carbon

(7) Particle Radiation Tolerance: Less than 0.03 rem steady state (per week), less than 100 rem short term.

(8) Sensory Types, location, and sensitivities:

(8A) Electromagnetic:

Coarse: 7,000-10,000 Angstroms; skin

Fine: 4,000-7,000 Angstroms - color vision; eyes

(8B) Pressure Differential:

Remote: 20-20,000 cycles; ears

Contact: skin, muzzle hairs

(8C) Chemosensing:

Coarse: Depends on substance; skin, tongue

Fine: Nasal cavity (slightly more sensitive than human), tongue

(8D) Damage Detection:

Corrosion: skin

Other: internal electromagnetic nervous system

(8E) Texture Sensing: skin

(8F) Psi senses: Telepathic communications to an average of 165 meters range (10 meters per point of TSC).

(8G) Other: No other senses

(9) Substances absorbed: Oxygen, other creatures, water, miscellaneous trace elements. Carnivorous.

(10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.

(11) Reproductive Methods: Typical mammalian; gestation period 295 days (double birth).

(12) Body shape and Natural Weapons: Tailed, furred bipedal feline; teeth, hands, feet, non-retractile claws on feet, retractile claws in fingers.

(13) Periodic Functions: 24-30 hour wake/sleep cycle (diurnal species); 25-33 day female menstrual cycle.

(14) Non-sensory Psi Functions: Varies with individual

9.2.11 Skiltaire

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Char.	Dice	Expected	Species Maximum
STR	3D6	10.5	21
INT	2D6+6	13	21
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	4D10	22	44
DEX	4D8+2	20	39
CHA	3D6	10.5	21
LEN	2D8+111	120	130
BLD	1D4+8	10.5	14
SIZ	---	15	17 (15 rollable maximum)
TSC	4D12	26	N/A
TPR	4D12	26	N/A

Expected Bonuses:

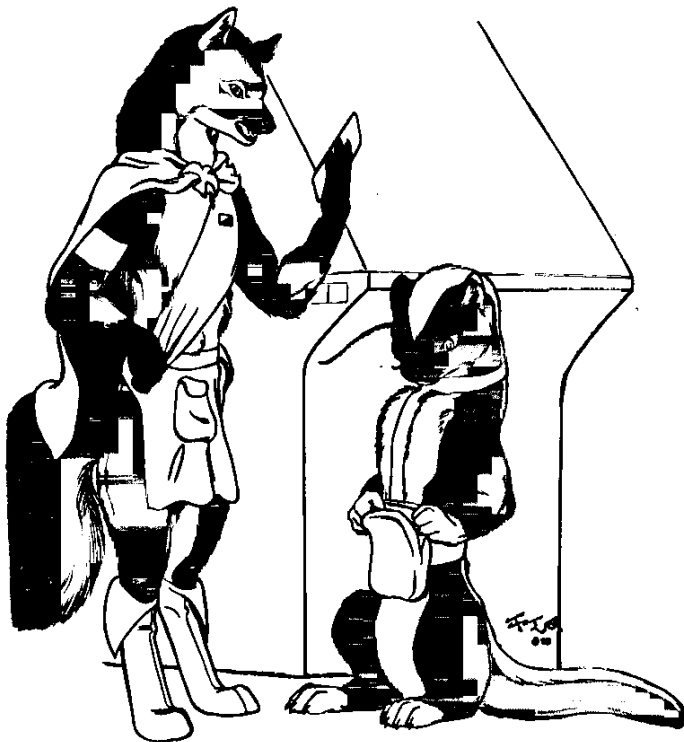
Accuracy	=	+24.5%
Attack	=	+24%
Damage Bonus	=	0
Dodge	=	+24%
Hit Points	=	13
Knowledge	=	+5.5%
Luck	=	12
Manipulation	=	+19.5%
Observation	=	+5%
Parry	=	+35.25%
Persuasion	=	+0.75%
Stealth	=	+34.5%

Armor = 1 point fur (impact only)

Expected mass = 38 kilograms (80 lbs)

Natural Weapons' Damage: claws - 1D4+1
bite - 1D6+1

Electrogenative tissue allows shocks to be transmitted on contact (see Natural Weapons under Physical Characteristics for detailed description).

**9.2.11.1 BRIEF BACKGROUND**

The Skiltaire are unique in that they became a member race of the Hegemony without apparently having or independently developing any direct physical instrumentality capable of providing FTL (or even STL) interstellar transport. They were admitted as a member race after having been found on many worlds separated by thousands of light years. No indication as to how they managed to colonize these worlds has ever been found (and the Skiltaire themselves have been somewhat less than informative in this regard).

Despite their lack of technology, however, their incredibly potent telepathic capabilities were regarded by the OverGovernment as far too

valuable to allow the Skiltaire to be barred from contact. Where most telepathic species measure the range of their talents in, at most, hundreds of meters, the Skiltaire measure the range of their talent in tens of AU (in billions of kilometers - trillions of meters). (Skiltaire telepathic range is given by 1 AU per point of TSC - roughly 93 million miles, 150 million kilometers per point of TSC, and even though they are unable to use mode 4 of telepathy - telepathic attack - this extended range makes them invaluable on survey missions).

The Skiltaire are extremely friendly as a race, and abhor violence. They are beings of uncommonly even dispositions, and among the more empathic of the Hegemonic races. And they have risen high in the ranks of the diplomatic corps of the OverGovernment, and high in the ranks of the Contact Subsection of the Star Arm as a result.

The Skiltaire are among the smaller of the Hegemonic races. They are quadrupeds whose front paws have sufficient manipulatory capability to grant them tool maker/tool use status. And the Skiltaire resemble no single terrestrial animal more than the sable.

The color patterns of both the arboreal and aquatic varieties are quite striking (note: the difference between the aquatic and arboreal varieties are strictly phenotypical - the two varieties can interbreed and produce fertile offspring). The arboreals range from silver to grayish white to black, with brighter colored chest fur; there will commonly be a darker stripe of body fur extending from the head to (possibly) as far back as the tail, and the paws will commonly be the same color as this stripe. Among the aquatic varieties, the body fur tends to be somewhat lighter - grays to light browns - and the stripes are almost always bright shades of blue or red (in any case, the stripes will always be bright colors with high contrast relative to the body fur color). This high contrast stripe pattern is believed to act as a confuser for large aquatic predators (in a fashion somewhat similar to the coloration patterns on neontetras).

Precise records of when the Skiltaire were admitted to the Hegemony were lost during the Collapse, though it is known that they have been involved with the Arms since the time of the Third Expansion (though first contact may well have predated this period). The Skiltaire do not have a representative on the Central Committee. So long as the OverGovernment does not attempt to force them as a race to commit an immoral act, they are perfectly willing to let someone else run the OverGovernment.

9.2.11.1.1 Ancient weapons of the Skiltaire

In hand to hand combat, the Skiltaire do not employ artificial weapons, relying instead upon the considerable natural electrogenerative capabilities to shock their targets into insensibility or death. As a result, there are no non-modern weapons of unique Skiltaire origin.

9.2.11.2 SKILTaire PHYSICAL CHARACTERISTICS

- (1) Gravitational Norm and Tolerance Range: 1.00 g, 0-4 g, max 8g.
- (2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.00 atmospheres.
- (3) Temperature Range Norm and Tolerance: -10 to +30 degrees C mean; -20 to +40 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: 3'9" to 4'3"
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.03 rem steady state (per week), less than 100 rem short term.
- (8) Sensory Types, location, and sensitivities:
 - (8A) Electromagnetic:
 - Coarse: 7,000-10,000 Angstroms; skin
 - Fine: 2,600-7,000 Angstroms - color vision; eyes
 - Other: Sensitive to changes in electromagnetic fields generated either by the Skiltaire or by external sources (giving an effective motion sensing capability - range = 5 meters per point of WIL). This motion sensing capability should be treated as a species specific skill, with game mechanics functioning as per the listening skill, with identical training costs. The base value for the skill is 30%, and it is an OBSERVATION skill.
 - (8B) Pressure Differential:
 - Remote: 20-28,000 cycles; ears
 - Contact: skin, muzzle hairs
 - (8C) Chemosensing:
 - Coarse: Depends on substance; skin, tongue
 - Fine: Nasal cavity (more sensitive than human), tongue
 - (8D) Damage Detection:
 - Corrosion: skin
 - Other: internal electromagnetic nervous system
 - (8E) Texture Sensing: skin
 - (8F) Psi senses: All members of the species are telepathic - with a

telepathic range of 1 Astronomical unit per point of TSC (and individual may 'gray out', that is, shut down all psionic trace of himself (or herself) and become literally undetectable by psionic means). The Skiltaire are not capable of using their long range telepathy to launch telepathic attacks, though once an attack is launched at them, they may counterattack out to their full range.

(8G) Other: The skiltaire are able to sense motion (range = 5 meters per point of WIL) or alteration in electromagnetic fields via an organ similar in some respects to the electrogenerative mechanism in electric eels and the lateral line in sharks. In addition, the skiltaire are able to sense electric currents indirectly by sensing the generated magnetic fields. This is a 30% base observation skill among the Skiltaire, with training costs identical to the Listening Skill.

(9) Substances absorbed: Oxygen, other creatures, fruits, water, miscellaneous trace elements. Carnivorous.

(10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.

(11) Reproductive Methods: Typical mammalian — size of litter and gestation periods not shown.

(12) Body shape and Natural Weapons: Furred mustiline quadruped; teeth, paws, and electroshock generative tissue. Skiltaire are capable of generating electrical shock attacks (either in the form of 4D10 END damage attacks to target per action point of contact or in the form of a single 4D8 attack vs CON — treated as per sonic stunner — with contact range only). The Skiltaire are immune to the effects of magnetic pulse stunners and electrical shock.

(13) Periodic Functions: 24-30 hour wake/sleep cycle. Period of female menstrual cycle not known.

(14) Non-sensory Psi Functions: Varies with individual.

9.2.12 Uquoi

Char.	Dice	Expected	Species Maximum
STR	4D6	14	28
INT	2D6+6	13	21
WIL	3D6	10.5	21
CON	2D6+6	13	21
END	7D10	38.5	77
DEX	3D6+2	12.5	24
CHA	3D6	10.5	21
LEN	6D20+140	203	267
BLD	4D6	14	28
SIZ	---	24	36 (33 rollable maximum)
TSC	RdD6	0	N/A
TPR	1D4+1	3-4	N/A

Expected Bonuses:

Accuracy	=	+9.5%
Attack	=	+12.5%
Damage Bonus	=	+1D4/+1D2
Dodge	=	+5.5%
Hit Points	=	23
Knowledge	=	+5.5%
Luck	=	12
Manipulation	=	+11.75%
Observation	=	+5%
Parry	=	+3%
Persuasion	=	+0.25%
Stealth	=	+1.5%

Armor = 2 point skin (both energy and impact)

Expected mass = 138 kilograms (304 lbs)

Natural Weapons' Damage: claws on hands — 1D3
bite — 1D6
kick — 1D6
tail bash — 1D8 + 2
claws on feet — 1D6 + 1

RdD6 — Roll 1D6. On a roll of 1-5, record a 0. On a roll of 6, record a 1.

9.2.12.1 BRIEF BACKGROUND

Though the Uquoi vaguely resemble bipedal komodo dragons, they are nonetheless intelligent mammalian omnivores.

The homeworld of the Uquoi, Chan, is a terrestrial world with a surface gravity of 0.98 gs with an Earthlike atmosphere. It orbits a G2

main sequence star at a distance of 1 Astronomical Unit.

The Uquoi evolved from large killer omnivores that moved about in tribes similar in size to those of the early pre-humans. They are reasonably easygoing and gregarious as a species.

Like Humans, the Uquoi are polygamous by nature. And in most of the advanced Uquoi societies (as in most of the Human societies) monogamy (or at worst serial polygamy) is the cultural rule.

Most of the Uquoi societies are republican democracies (and easily recognizable as such). Though, like the Humans, they have not been reduced to one monolithic governmental form — they have their monarchies, and their dictatorships, and other governmental forms with no proper equivalent in human societies.

The Uquoi are one of the founding races of the modern Hegemony, and can be considered to have joined it during the early years of the Third Expansion. They have a permanent representative on the Central Committee, and are considered quite important in Hegemonic galactopolitical circles.



9.2.12.1.1 Ancient weapons of the Uquoi

The tailaxe is a large axehead which fits snugly over the end of the tail. It is a class C1 type S weapon with length 0.2 meters and mass 1.3 kilograms. It is a 20 hit point weapon and it does 1D12 damage. The training costs for the tailaxe are as follows: 150/300/450/600/750. A tailaxe costs 30 smu.

The tailball is a metallic spiked ball which fits snugly over the end of the tail. It is a class F1 type B weapon with a length of 0.2 meters and a mass of 1.5 kilograms. It is a 20 hit point weapon, adds +2D4 damage to tail attacks, and its training costs are as follows: 125/250/375/500/625. A tailball costs 25 smu.

9.2.12.2 NAMES AMONG THE UQUIO

For some reason known only to the Uquoi (and which they have proven quite unwilling to divulge), no Uquoi will allow any non-Uquoi to learn his 'name'. They choose instead to assume legal names of record the first time they go off planet, and are known henceforth by whatever name they chose at that time. These names are selected by random selection (or so it would appear) from available names used by other species. If there is some convention employed in the choice of the name, the Uquoi are not telling — and as it is a harmless enough idiosyncrasy, no one is trying particularly hard to find out.

9.2.12.3 UQUIO LANGUAGES

There are nine major living Uquoi languages: (1) Charda, (2) Liliwak, (3) Bredak, (4) Karakalak, (5) Friestang, (6) Lilura, (7) Padd,

(8) Durkrk, and (9) Traka. The Uqoi are roughly evenly divided among those who speak each of the major tongues as a native language. Linguistic similarities between Durkrk and Traka allow speakers of each of these languages to speak the other at one-quarter their skill level (or their skill level in that other language — whichever is higher).

9.2.12.4 THE UQOI OUTLOOK

- (1) There is a passion for physical pleasure and relaxation.
- (2) The five cardinal virtues are: wisdom, courage, honor, obedience to duty, and curiosity.
- (3) Strength of will and character, and tenacity are also considered important.
- (4) Only these virtues justify power over another intelligent life form.
- (5) Virtue is an end in itself.
- (6) There is a basic natural law governing all intelligent life forms.
- (7) Under this law, all intelligent life forms are basically equal.

Attitudes of the Uqoi (Upper/Middle class)

Characteristic	Uqoi Attitude
'Human' equality	Axiomatic
World view	Optimistic (Hedonist)
Dignity	Basic Virtue
Poverty	Vice
National Memory	Extremely short
Galactic Domination	Psychologically unprepared to accept.

Attitudes of the Uqoi Elite

Characteristic	Attitude
Power evokes	Respect
Greatest political force	The rule of law
Most great individuals receive	Admiration
Hero image	Stern, wise patriarch
Individualism	Exalted
Sophisticated, educated aliens evoke	Respect
Ambition in others	Accepted
Greatest Weakness	Unity
Attitude toward others' culture	Respect & Interest
Dilettanteism	Unappreciated
Leisure	Vice

9.2.12.5 UQOI PHYSICAL CHARACTERISTICS

- (1) Gravitational Norm and Tolerance Range: 0.98 g, 0-1.5g, max 6g.
- (2) Atmospheric Norm and Variation Tolerance: 60-400 mm Hg Oxygen, 10-25 mm Hg Water Vapor, 1.00 atmospheres.
- (3) Temperature Range Norm and Tolerance: -10 to +30 degrees C mean; -20 to +40 degrees C daily.
- (4) Electromagnetic Range(s) Tolerated: 0-30 lumens per square centimeter; wavelengths greater than 300 Angstroms.
- (5) Size Range: 4'10" to 8'7"
- (6) Chemical Base: Carbon
- (7) Particle Radiation Tolerance: Less than 0.06 rem steady state (per week), less than 150 rem short term.
- (8) Sensory Types, location, and sensitivities:
 - (8A) Electromagnetic:
 - Coarse: 7,000-11,000 Angstroms; skin
 - Fine: 3,500-8,000 Angstroms — color vision; eyes
 - (8B) Pressure Differential:
 - Remote: 20-22,000 cycles; ears
 - Contact: skin
 - (8C) Chemosensing:
 - Coarse: Depends on substance; skin, tongue
 - Fine: Nasal cavity
 - (8D) Damage Detection:
 - Corrosion: skin
 - Other: internal electromagnetic nervous system
 - (8E) Texture Sensing: skin
 - (8F) Psi senses: Varies with individual
 - (8G) Other: One individual in 100 possesses a rudimentary motion sensing capability similar in effect to that of Skiltaire. Range is 1 meter per point of WIL.
- (9) Substances absorbed: Oxygen, other creatures, plants, water, miscellaneous trace elements. Omnivorous.
- (10) Substances Emitted: Water, Carbon Dioxide, miscellaneous solid, liquid, and gaseous organic compounds.
- (11) Reproductive Methods: Typical mammalian; gestation period 290 days (single birth).
- (12) Body shape and Natural Weapons: Bipedal tailed reptiloid; teeth, feet, tail, claws on fingers and toes (non-retractile).
- (13) Periodic Functions: 25-32 hour wake/sleep cycle (diurnal species); 20-24 day female menstrual cycle.
- (14) Non-sensory Psi Functions: Varies with individual.