

Tri Tac Games

Tri Tac Systems

TTS 2001

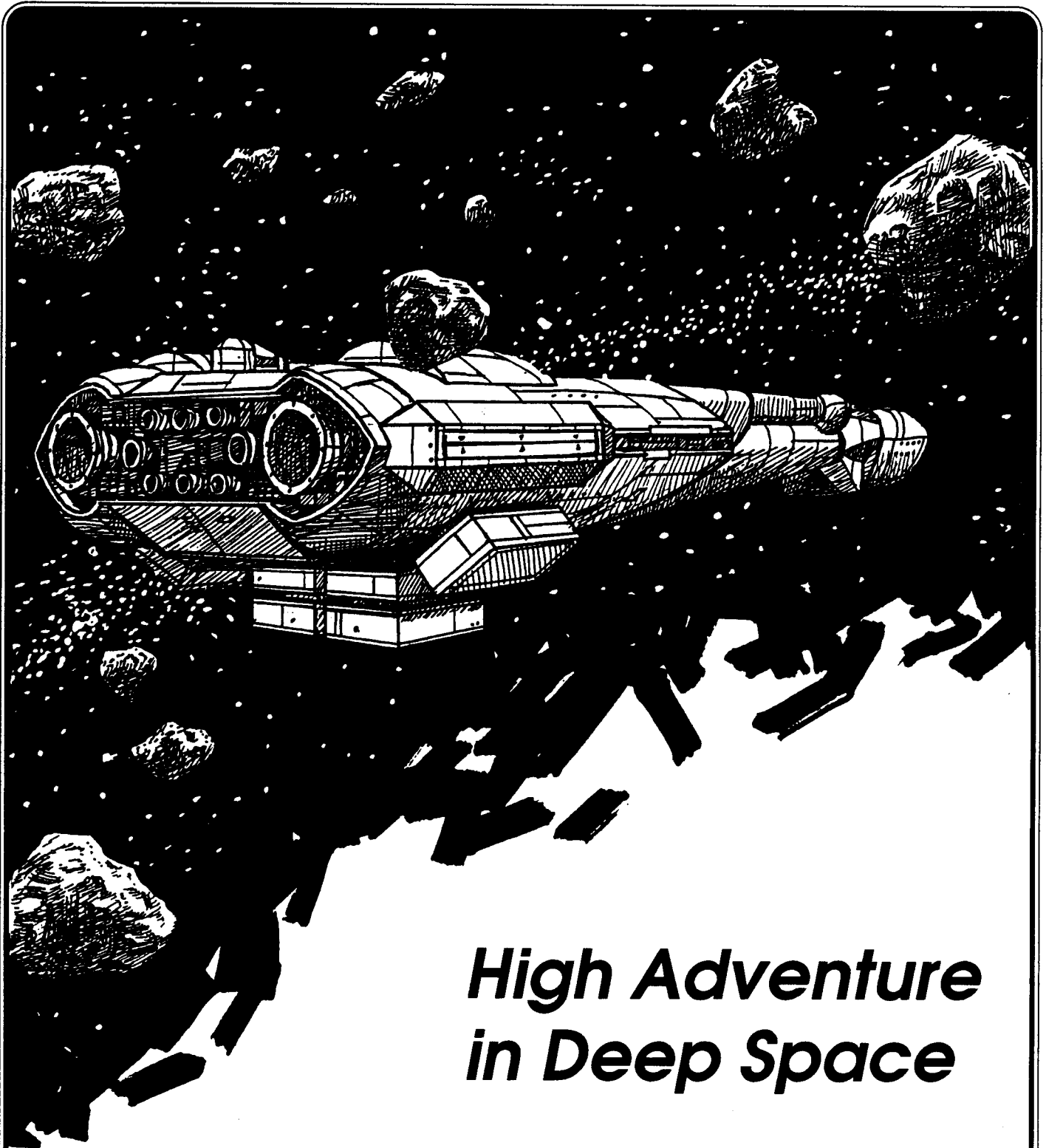
FTL: 2448

Space Adventure in the 25th Century
Book 1



Science Fiction Role Playing

Tri Tac Games



*High Adventure
in Deep Space*

FTL: 2448

by Richard Tucholka

FTL 2448

FTL 2448

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and the folks at NASA

In Memory of:
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William Welsh
Joseph Tucholka
Josh Saulnier

DESIGNER'S NOTE

So many gamers and technical advisors have commented and helped, that I can't mention them all. I especially dedicate this edition to the crews of the following Starships.

Santa Barbara ISCO 0024, Ventura ISCO 0013
The Busted Flush, HMS Aardvark
Lancaster/Disaster, Alternera
Gooseberry Fool, Spirit of Zug Island

And to the Canadians at the University of Windsor who fought the Hagoni behind Enemy Stars.

Special thanks to Steve Jackson Games and Bill Barton. See *Gurps Space*™ Page 03.



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Tri Tac Games

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INTRODUCTION:

The Light Fantastic

The history of the technological advancement of the human race is riddled with political manipulation and massive sociological misunderstanding that may cost us the stars *Francisco Omoxomo*

The last decades of the Terran twentieth century showed that the technological spinoffs of space exploration created many new industries and added fantastic amounts of new technology. Most people of the time failed to realize that the comfort and security of their lives was closely related to the continued development of space technologies. In economic moves to better faltering and mismanaged economies, the space programs were strangled by budget cuts and politicians who thought the money better spent on pay raises and short-sighted social programs that failed to solve the real economic problems of the day. History shows us that the technology was available to alleviate these problems. It is unfortunate that big business was short sighted and that the populations did not know what the real issues of the time were. As developmental industries folded because of unfounded fear and ecological protest, the fate of the economies was sealed into a downswing to disaster.

Finally, the collapse of the Soviet Union, war in the Middle East and the following 'Lean Years' of the Post Reagan/Bush world showed the people that centralized government had bogged down completely and failed. Disgusted people and dying cities proved the world was far too small a place for haphazard planning and political stupidity.

It may be considered ironic that the forces to pull together and rebuild the world were not the governments or military, but the remaining corporations and the people themselves. The new corporate governments, thus formed, and began to rebuild the technologies that favored their survival and the prosperity of their workers.

By the early 21st century the old launch sites were active again as space became a necessity. The new governments prospered and mankind moved rapidly into the stars; where, in a spirit of brotherhood and destiny, gained the friendship and federation of many intelligent alien races.

But history tends to repeat itself when the frontiers are measured in light years. Special interest, corporate corruption and political stupidity have again begun to rise from the ashes of history unlearned.

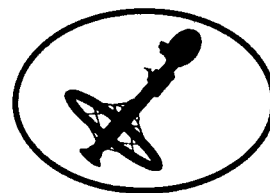
Faster Than Light 2448

The year 2448 is a time of many opposites; a time of wealth and harsh colonial life, of corporate nobility and industrial terrorism. Aliens in many forms are joining man for his ideals and other aliens wait for his failure in hopes of picking the remains.

It is the new age of the Independent Starships and the crews that run them.

Welcome to 2448

It's not glamorous, but it's ours.





FTL: 2448

Faster Than Light 2448 is a role playing game of adventure and planetary exploration in the not so distant future.

You will become a human or alien in a time of exploration and corporate expansion where fortunes can be made and lost by the seldom considered individual. You can visit worlds of wealth and poverty, work in hells or places built on ideals. Aliens and robots will be your friends as you travel to the frontiers of settled space and beyond.

In FTL you will find no Galactic Empires of Starkings, Battlelords, Dreadnaughts, or planet destroying Cosmic Rangers. You will find real people interacting with aliens and alien cultures under the watchful eyes a police agency dedicated to fairness and peace.

FASTER THAN LIGHT GAME BOOK

FTL: 2448 was written to be realistic, concise, and easy to play with the Tri Tac System or your favorite game system. The system was playtested by role-players who understand the problems of running a game with overlong text and complex systems that make the game a burden for GM and player alike. The book you hold is a compendium of ten years of playtesting across the US and Canada.

FTL: 2448 is a complete rule book when you add the second Volume of FTL.

FOURTH EDITION FTL

The new editions of Tri Tac Games are not much different from the old Tri Tac system you may remember, though many changes have been made to make it more playable and less time-consuming for the GM. For younger gamers, beginners, and GM's who hate a serious rule system, we've created a lot of easy options for game play.

MATERIALS NEEDED

- 01 One copy of FTL: 2448 Books 1 & 2
- 02 Paper, Pencils, Notebooks, Maps, Index Cards
- 03 A good stock of Photocopies of the UTILITY SHEETS from the back of this book.
- 04 A set of common polyhedral dice, the more the better. These will include the following:

TYPE	CODE	RANGE
Four Sided	d4	01-04
Six Sided	d6	01-06
Eight Sided	d8	01-08
Ten Sided	d10	01-10
Twenty Sided	d20	01-20
Percentile	d100	01-00
(or Gamescience™ Zocchihedron 100 Sided Dice)		

- 05 A Tri Tac Systems Shield (#0500) and TacCards are an optional addition for the GM and players.
- 06 A pocket calculator is helpful.
- 07 A GM and 1-20 players.
- 08 A set of miniature figurines and scale buildings are great for placing the setting of your adventure.
- 09 An outstanding imagination or a very keen interest in science fiction, and a quiet place to play are also a must.
- 10 Don't forget the pop & chips.

PHOTOCOPYING

Photocopying is for personal use only. Any resale of FTL: 2448 playing aids is a violation of copyright laws and punishable by legal action.

If you're interested in producing or licensing FTL: 2448 playing aids, contact Richard Tucholka at Tri Tac Systems at the address listed elsewhere in this book.

TERMS OF ROLE PLAYING

In FTL: 2448 you will learn many new terms or abbreviated words that will help you play the game. Many of these terms will soon become second nature.

ROLE PLAYING

If you have this book, you know what role playing is and we need not go into detail to explain something you've seen defined a hundred times before. Remember that role playing is group interaction, cooperation, and fun. Never lose sight of this fact.

GAMESMASTER (GM)

The records keeper and designer of the adventure. This is the person who sets the stage of events your player character will experience. The abbreviated term for Gamesmaster is GM.

PLAYER CHARACTER (PC)

The individual(s) created by the player for the game. This character is controlled entirely by the player. Player characters may also include aliens and animals as long as they are played true to their intelligence, personality, and temperament.

NON-PLAYER CHARACTERS (NPC)

These are the characters created by the GM that become the friends and foes in the game. Their personalities and development may range from simple to complex colorful individuals.

FTL: 2448

FTL:2448 is an optimum year in the second 'Boom' age of the Independent Starship and exploration of the frontiers of settled space.

ISCO

The Interstellar Co-Operative of worlds. The governing and scientific body that regulates member worlds.

ICL

The Interstellar Court of Law is the police and military body that backs up ISCO and deals with interstellar crime.

4d6

This is the indicator for rolling a random number on any of a series of types of dice. The initial number (4) is always the number of dice to roll of the type designated by the (d). The example 4d6 has the player or GM rolling four six sided dice and totaling the resulting numbers.

4d6 +2

The +2 modifier is added to the total of the first dice rolling operation. Always follow operations from left to right.

4(d6+2)

This +2 dice modifier is attached to the initial d6 dice being rolled. The result, in the brackets, is multiplied by 4. Always figure numbers in brackets before multiplying.

d6 x .50

The x .50 is a modifier for the final total result. Most of the modifiers can be found in the handy NUMBER MULTIPLIER chart in the back of the book. Always round your fractions down. (See Also Pg. 178)

MEASUREMENT

FTL: 2448 was designed with the English system of measurement. A metric conversion table is included in the appendix. (See Also Pg. 177)

CROSS INDEX

Many sections of FTL will reference other pages with related information. Look for these sections that end with: (See Also Pg. 003)

N/A —

This is a general term used throughout the game that means not applicable or nil. This will often be found in areas where data is not necessary.

TABLES

Most tables and charts are not generally labeled for the type of dice to roll. These are most often a d100 or a d10 roll. The range of these tables are always the dice type to throw unless otherwise specified.

UTILITY SHEETS

These are example sheets that can be photocopied for player or GM use. Do not use the original for game play. There is a large utility appendix at the end of this book.

TIME, MOTION & ACTION

Throughout FTL: 2448, time will be listed as actions, turns, and real time. Mostly these are abbreviated into the following simple system.

s	=	Seconds
m	=	Minutes
h	=	Hours
d	=	Days
w	=	Weeks
MO	=	Months
YR	=	Years
ACTION	=	2 Seconds Real Time
TURN	=	1 Minute or 30 Actions

EASY ABBREVIATION

In all Tri Tac Games we try to use a simple system of phonetic abbreviation.

"It may be the final frontier, but it doesn't put a few d's in your pocket or food on the table."
Borfort Laguinda

WHAT CAN I DO DURING AN ACTION?

In any action, characters can perform short physical movements such as:

MOVE	THROW AN OBJECT
SAY A FEW WORDS	FIRE A WEAPON
PUSH TWO BUTTONS	DRAW A WEAPON

AGILITY MODIFIERS

A high agility may increase or lower your number of movements per action. (See Also Pg. 009 & 021)

MOVEMENT RATES

WALK	=	04 feet per action
DODGE	=	05 feet per action
RUN	=	07 feet per action
RUNNING JUMP	=	01 foot cleared per point of STR
IMPAIRED MOVEMENT	=	Half movement from pain, stun, wounds, intoxication, etc.

COMBAT

In each combat action a character can do one of the following:

PHYSICAL ATTACK

Attempt to hit any target by rolling a d20 under your character's Dexterity. Use any optional size and speed modifiers where they can apply. You may also use the optional motion modifiers from the skills section. (See Also Pg. 021-022)

MARTIAL ARTS

These varied skills give the character a special range of physical combat skills and combat options.

Always roll under your Martial Arts percentage on a d100 for successful use. (See also Pg. 115-117)

WEAPON ATTACK

Attempt to hit a target by rolling a d20 under your character's Accuracy. Use size and speed modifiers from the Projectile and Weapons Fire section (Pg. 142-143) You may also use the optional motion modifiers from the Skill section. (See Also Pg. 021-022)

In the rear section of FTL also find an EASY COMBAT INDEX. (See the final page of this book.)

SIMPLE DEFEND

To protect from physical attack. Roll a d20 under the character's Dodge statistic for success in dodging an attack. This choice of action does not allow a return attack. High velocity projectiles can not be dodged. For more complex use of the system see page 114 to start Physical Combat.

HIT POINT, WBD, HPT

This is all the same term for body or structure points. The term HPT is an abbreviation for Hit Point and WBD is the term meaning Whole Body Damage or gross physical damage.

EXAMPLES

As you progress through the ideas and game concepts of FTL, you will meet and get to know three of the races of settled space. The life and adventures of Ben, Bells, & Quag will guide you through the book as an example of how to use the game systems. These are the trials and tribulations of a Human, Kymnar, and Trel who whose life begins here.

Ben, Bells, & Quag

Ben Warren **RACE:** Human, Male
AGE: 35 **PLANET:** Mars
Job: Electronics Tech

The son of a corporate engineer, Ben spent most of his childhood on the vast Starport Complex of Fomalhaut. Because of his father's Martian citizenship, he has a home planet even though he has never set foot on the Red Planet.

At age 18, Ben took a four year break for military service contract as a 'Phase' engineer of lower standing. For the last 13 years Ben has been a Phase Mechanic for a small corporation on Fomalhaut. Ben is not married and has few family ties. Secure in his job, he does not realize his luck has just changed. His old employer was just bankrupt by the IRS, the Interstellar Revenue Service.

Bells **RACE:** Kymnar, Female
AGE: 27 **PLANET:** C'Char
Job: Musical Performer

Firstborn of a Kymnar military family that forced her to leave her world because of an obsession with Terran jazz music. Abandoning her assigned military training and studies, she offended a long term family tradition. She became a Jazz Musician and earns a meager salary from a small bar on Fomalhaut.

Bells plays poker with Ben every Thursday night. She is not as temperamental as many members of her race, a highly unusual feature in the Kymnar. Male Kymnar consider her a few cans short of a six-pack, at best.

Quagmire **RACE:** Trel, Male
AGE: 21 **PLANET:** Bryox
Job: Agriculture Tech

The 8th of the litter, Johnathon Quagmire the Third's parents thought to terrestrialize their children's names. At 15 Quag left his family of engineers to find some form of employment. He specialized in Space Agriculture and became a gardner on one of Fomalhaut's Nature Domes. Happy and content, he plays poker as a hobby.

Last Monday Quag played poker with a different group and took them to the cleaners for a modest profit of 14,700 d's and a package of stock and securities.

He tells his friend Ben about the last frustrated bet by the businessman that netted him an antique digital watch and a deed card to an asteroid.

As Ben drops the card into a computer Info terminal he chokes. The card is not a deed to an asteroid but a deed to a junked starship waiting to be scrapped. Ben smiles. The Independent Star Freighter (ISF 9905 Wapakoneta) waits.

HISTORY 101

Welcome to the 25th Century. Things are very different and at the same time, very similar. The fact is that while technology grows and improves, human nature does so at a much slower rate. Our hopes, fears, and cultural baggage stay with us and only change given time and a real good reason. Times may have changed, but people have not.

TERRAN HISTORY

The following is a simple overview of Human history from the dawn of the space age to the year 2448.

A more detailed history is provided later in the **Section Living FTL**. (see Pg. 032)

LATE TWENTIETH CENTURY

First Flight and Politics

The first flights into space, computers and the age of free information had profound effects on the governments of Earth. In particular, the American superstate showed the planet what free economy and high technology could produce. Greed finally won out as people in the communist nations demanded a better life. With the collapse and breakup of the Soviet Union and the death of hardline communism in China, global nuclear war was averted. Space exploration dragged due to mismanagement, political stupidity, and a general lack of interest by the populations. While the Americans became the greatest military force on the planet, they failed to realize that the cost to their economic base and people had been tragically high.

EARLY TWENTY FIRST CENTURY

Political Collapse and Hope

The short sighted game of politics finally shot itself in the head in the early part of the 21st Century. Economic failure and a loss of faith in their leaders caused riots and sweeping changes in the deteriorating quality of life. Nation by nation systems collapsed and anarchy reigned. The cities became battlegrounds as they were reclaimed by police and military. Corporations, now controlling wealth beyond belief, began to realize they had the power to improve life.

MID TWENTY FIRST CENTURY

Space Stations and System Exploration

With both political and social recovery, eyes turned back to space manufacturing and exploration of the solar system. A space station and manufacturing platforms were placed in service as mankind returned to the Moon and set foot on Mars. Deep system exploration begins.

LATE TWENTY FIRST CENTURY

Moon Colony, Rise of ICO, and Brazil

Establishment of the International Cooperative of Nations, a self sufficient Moon and Mars colony, and the rise of Brazilian Nationalism under the leadership of a benevolent dictator.

EARLY TWENTY SECOND CENTURY

The Omoxomo Era and Earth Unification

The final International/Political conflicts and the discovery of a working FTL drive system.

MID TWENTY SECOND CENTURY

First Out-System Explorations, Colonies

First careful exploration of near star systems and the first human colonies in the Asteroids and the Moons of Jupiter. Earth habitats built at Earth/Moon trojan points. Mars colonization rapidly expanding.

LATE TWENTY SECOND CENTURY

First Colonies

Near star exploration have given mankind a handful of Earth-Like planets for colonization. Development continues at a leisurely pace.

EARLY TWENTY THIRD CENTURY

First Alien Contacts

Humans meet Bor'Cha and strike a great friendship. Other races are discovered

MID TWENTY THIRD CENTURY

First Boom Era

Human and alien technologies combine to create the first expansion boom for colonization. The era of the big colonizers and the scramble to the stars.

LATE TWENTY THIRD CENTURY

First Independent Starships

First independent starships and freighters not owned by corporation or governing agency. First Corporate battles that became a shooting war. Formation of Interstellar Police and the Interstellar Court of Law to settle disputes.

EARLY TWENTY FOURTH CENTURY

Economic Problems Era

The boom goes bust as the economies falter and crash. A half century of stagnation and economic slowdown result. Space expansion suffers as social problems take the brunt of funding and governmental concern.

MID TWENTY FOURTH CENTURY

Recovery & Android Era

The creation of a cheap labor force of androids is welcomed until the near human machines began to demand rights and prove to have far too much of their creators in their psychological makeup. Androids learn to kill.

LATE TWENTY FOURTH CENTURY

Years of Rogue Androids and their Disposal

Economic reorganization and the long term hunt to find and dispose of androids.

EARLY TWENTY FIFTH CENTURY

The Alien Boom

Alien races joining with ISCO double in number as a wealth of information and culture is spread across ISCO space. First glimmering contact with Hagoni and Zankee raiders on the frontier.

MID TWENTY FIFTH CENTURY

The Hagoni Problem

Mankind and his allies come face to face with a race of tyrannical slavers called the Hagoni. While talking peace, they use mercenaries to raid the frontier and glean needed technology to catch up to ISCO spaces lead.

WHAT DO I DO?

Your background is entirely your decision. Whether Marine, ICL Commando, or Pizza Delivery person, the character is dependent on your creativity.

WHAT DO I START WITH?

Anything you want. This may tie into family and past wages, investments, and even personality. You may use the following table for in-pocket cash to start. For general savings multiply your Cash on Hand by 100.

ROLL	CASH ON HAND	GENERAL STATUS
01-02	d4	Destitute
03-18	d4 x10	Unemployed
19-25	d4 +4 x10	Part-Time Employe
26-85	d4 x100	Employed
86-95	d4 +4 x100	Comfortable
96-98	d4 x1000	Well Off
99	d4 +4 x1000	Very Well Off
00	d4 +8 x1000	Wealthy

THINKING FTL

The decision to play an alien is entirely the players choice. As you choose, note the personality and remember you are not running a human in an alien suit but a creature that may have different motivations and lifestyle of what you consider normal.

First create your character as a human but use pencil when writing on your sheet. You will have changes to make later. When finished with the statistics, stop and turn to the Alien Statistics Chart on Pg. 036. Modify your statistics, check skill limitations on your race from the aliens description, and continue your characters education.

REMEMBER

- 01 Create a Character as Human
- 02 Modify into an Alien
- 03 Create Skills

GM'S NOTES

Humans are the dominant race in FTL space. Fast to spread, they have organized the other races and are the most populous species followed by Borchia, Blox, and Trell. While little racial prejudice exists against aliens, most starship crews are at least 50% human. All alien crews are rare but becoming more common.

HOW CAN I SURVIVE?

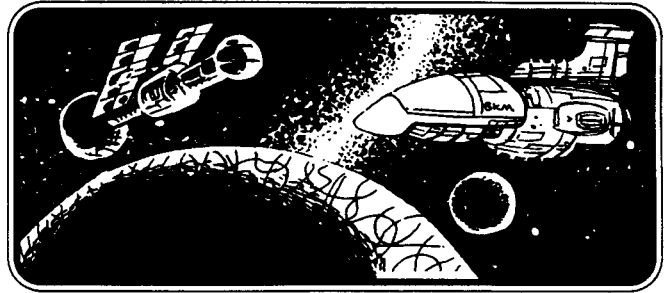
With a little common sense, close group interaction, a good sidearm, Space Training, and careful planning. The rest will fall into place.

WHERE ARE WE?

You start anywhere the GM deems appropriate to the opening scenereoo. Fomalhaut station is usually a complex and fun place.

WHERE AM I FROM?

Your world of origin is your choice. Humans come in a wide range of colors and ethnic backgrounds, so do aliens. Race does not generally denote planet of origin.



WHAT DO WE DO?

Once players have become used to their situation, they have many options of what to do with a Starship. Here are a few possibilities of what your crew can become:

Independent Freighter Crew

With a starship and a desire for a profit, the independent freighter crew is free to make their fortune by moving and trading cargo. These gypsies of the starlanes are hated by corporate shippers.

Corporate Freighter Crew

The corporate freighter crew is under contract to the company to ship and go where they are ordered. While some crew are company officials, many are contract workers and technicians who hate the regimentation of their bosses. While the pay is good, the moral is at best low. Outstanding crews often rattle their company officers as they bend policy and break as many rules as they can.

Independent Exploration Crew

Hired by University or private source, these ships are sent to explore and bring back artifacts and information from the far frontiers. This work is dangerous though the rewards can be spectacular. Contact with new races is often a delicate procedure that the exploration ship is advised to avoid. Releasing technology or damaging a primitive culture is now considered a legal offense by the ICL and punishable by ship forfeiture, fine, and a harsh prison world.

Corporate Exploration Crew

Sent by the corporations to explore and find things beneficial to the corporation that sponsors them. Often ISCO sponsors a lottery of sector exploration for a ship and company that meets its standards of equipment and First Contact Training. This initial survey data is returned and possible usable worlds are again lotteried to colonial corporations or industrial concerns. Sometimes motivations for such work are not for the best interests of other corporations.

EMR Crew (Emergency Medical & Rescue)

These specially trained engineers and medical technicians are used for special rescue missions in main star systems and danger areas. These ultra fast ships are well equipped with the fastest Phase Drives and latest Medical hardware. See Also the Section **EMR** in Book 2

ICL Police Team

Even in the future, there are criminals and police. Police teams investigate crime that involves multiple worlds. See also See Also the Section **COP 2448** in Book 2

ICL Marine Team

'The Few, the Proud, the ICL Marines!'

Popular Holo Ad

When the police have trouble handling a situation, the military arm of the ICL is used. These ICL Marines and Starborne Rangers are tough in body and mind. They work for law and peace.

Terrorists/Pirates/Criminals

On the other hand there will always be crime and those who take from the weak. This can involve simple theft to interstellar piracy. The characters may also become part of a political cause that uses violence to achieve its goals. See also the Section **Star Pirates** in Book 2

Students/Hitchhikers

Starting just before college, there's nothing like a year or two hitchhiking the starlanes or heading out to a far flung University for special studies. Some folks with skills needed by a starship work for passage or just to travel to the far flung corners of explored space.

Colonists

The world is yours if you can spend five years and establish a growing population and industrial base. Colonists may also follow corporations as workers. Under the watchful eyes of ISCO the Home Frontier Program provides an opportunity for qualified individuals and families to take that massive step outward and be the founders of a new world. See the Section **Colony 2448** in Book 2

The Ultra-Rich Out for Adventure

If you have the D's or Bux, nothing is out of reach. As the inheritor of a Starspanning Corporate, you can have a private ship and take your friends to the far reaches of explored space. Shop on old Earth, see the Military and War Museum on Kymnar, skate the roads of Vhe'Aet, or explore the ruins of Mazdok. It's all yours, you're rich.

The ICL Space Navy

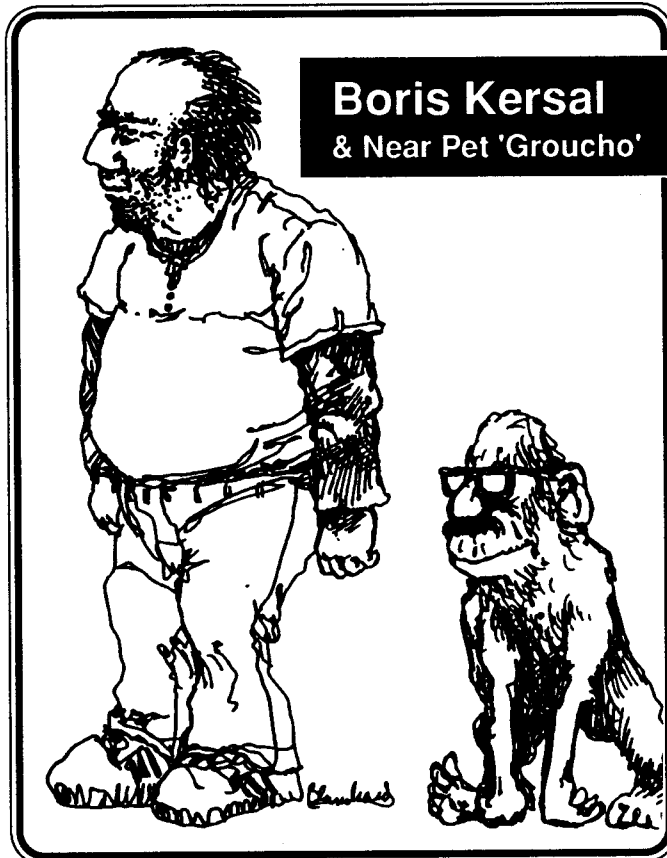
'Join the Navy and see the Universe!'

Popular Holo Ad

You and your friends have signed aboard the ICL Space Navy for a hitch of 4 to 7 years. As the harsh reality of 'Boot Camp' sinks in you realize nothing has changed across the centuries, your in the Navy. Even if the benefits are great, the pay low, the food awful, and the ports strange, you're part of the team. Better learn to love it because you're stuck. Also see the Section **Space Navy** in Book 2

Enemy Stars Group

With the problems on the frontier the ICL is now training specialized personnel to be dropped behind Hagoni lines. These disguised and equipped comando's are on a mission to damage the Hagoni infrastructure and help the slave planets of the enemy revolt. You have a year from drop to pickup and all the high tech supplies you can carry. See the Section **Enemy Stars** in Book 2



CHARACTER DESIGN

Character design is easy. First, make a photocopy of the FTL: 2448 Character Sheet from the back of this book.

LET'S CREATE A CHARACTER

As you begin, you will need to photocopy or hand copy a character and equipment sheet for play. Use a pencil, not ink, as you design your player character. Many of your statistics will change and you will want to erase outdated information. You may also wish to make an extra copy for the GM in case you lose your master copy. This character will often require updating.

REMEMBER

- 01 Follow instructions, rolling only once for each of your player character's statistics.
- 02 There is no best of three rolls or picking the "best" of 6 dice. What you get is your character. That's Role Playing, and your job is to make the best of what you are. When you roll a statistic, it is yours permanently or until you develop it by use of skills.
- 03 Think about your character before you develop his or her talents. With this system you will have the freedom to create a character whose personality and skills are entirely your choice.
- 04 Remember that aliens are created by modifying basic human statistics. Create a human character first as you get to know the system. When you create a second character in the future, create an alien if the GM gives the ok.
- 05 Let's Do it!

DESIGNING CHARACTERS

There is nothing as important as your character, his personality and history. All of this you will be free to design to any ends you wish. Create those factors that influence his or her day-to-day life, his reactions under stress, and his general attitudes.

Before you begin character generation and play, think about your character and remember a few basic rules for role playing.

REMEMBER

- 01 When your character is generated, you must decide on his or her personal makeup.
- 02 Keep in character. Think: will the character's next reactions be logical for this character? Will a devout coward rush into battle, or hide behind a computer to save himself?
- 03 Once having established a personality, stick with it. A good way to drive a GM crazy is a player character with a half a dozen personalities. A drunk one week doesn't become a saint the next without a little work or a good reason. When he becomes a lost Corporate Aire the third week, there may be a credibility gap.
- 04 Remember, you can always roll a new character to replace the old if you become really discouraged with the character's personality. Remember you are role playing. Temporary retirement gives the benefit of your having a character for a later date.

HOW DO I BEGIN?

Start with a blank character sheet. An example is in the Utility Sheet appendix of FTL: 2448. Also see the Jump Start options Pg. 182-184 for fast character generation.

CHARACTER INFORMATION

Follow the next few pages to generate the statistics for your character. When finished check the military training modifiers.

NAME

The name of the character you design. The name may be simple or colorful. Alien characters from other worlds should be named with reasonably realistic ethnic names.

RACE

The race of the character. This can be any known human ethnic or racial type. Aliens are possible too.

OCCUPATION

The primary skill of the character, what he or she does for a living. This may also be a new skill developed after starfaring.

COUNTRY / PLANET

This is the character's country or world of origin. This may also include adopted countries and will not necessarily predetermine race. This may also include alien worlds.

COMMAND

This is a character's military rank from current or past armed forces service. This may add to skills of survival and military weapons use. (See Also Pg. 024)

AGE

This is the age of the character.

SEX

The character's gender.

LEVEL

The current Experience Point level of the character.

EXPERIENCE

EXP

The number of Experience Points the player character has earned on his or her life and adventures. There are two spaces on the character sheet for experience. The first is for your accumulated points, the second is the next number you need to cross to gain extra HPT, Skill Points, and WKP.

Experience is entirely controlled by the GM. (See Also Experience on Pg. 022)

STATISTICS

These are the randomly generated numbers that give your character his strengths and limitations. The character sheet shows the block of statistics you will be generating. These are also called Stats.

STRENGTH

STR

Strength is the force a character can exert to lift or move objects. Each point of strength allows a character to carry 5 pounds with reasonable comfort.

STRENGTH HAS FIVE OPTIONS:

- 01 CARRY
5 pounds per point of STR with reasonable comfort. For every additional 10 pounds carried over a time, reduce your character's Agility by 2 points.
- 02 DEAD LIFT
Four times STR. Use in a lift situation for d4+2 actions in a 5 minute period.
- 03 DRAG
Six times STR. Use for d4+2 actions in a 5 minute period. Double this in an emergency situation.
- 04 COMBAT
To punch or strike with an object or self. See damage relating to strength. (See Also Pg. 114)
- 05 THROW
The limit of distance an object may be thrown. See damage relating to impact. (See Also Pg. 010 & 110)

GENERATE STRENGTH

For your Strength roll 4d6 and subtract 4 from the result. This type of (4d6) -4 roll is the standard roll to create most of your character's statistics.

CONSTITUTION

CON

Constitution is the general health of the character, his or her basic life force. Constitution can be reduced by sickness or critical damage to the character. At -1 CON a character is unconscious. At -3 CON a character suffers death shock and will die unless aided. Remember Constitution is your second set of Hit Points. Constitution regenerates at a rate of 1 point per 5 minutes in a nontrauma situation. (See Healing Pg. 027 and Damage Pg. 100.)

GENERATE CONSTITUTION

For a character's Constitution roll 4d6 and subtract four from the result.

DEXTERITY

DEX

Dexterity is the character's general measure of hand-to-eye coordination that allows him or her to do a precision task. This is also the hand-to-hand combat number that allows physical or hand-held weapon attacks. Always roll a d20 under your DEX to strike at a target, but remember to include the modifiers in the combat charts and other "to hit" modifiers due to skill and martial arts training. (See Physical Combat Pg. 114)

GENERATE DEXTERITY

For Dexterity roll 4d6 and subtract 4 from the result.

AGILITY

AGL

Agility is the speed of action of the character and the coordination of his or her movements. Determine your character's movement and action rate from the table below. Index across from your character's Agility.

RATING		ACTIONS	MOVEMENT
01-04	Low	x0.50	x0.50
05-16	Average	x1.00	x1.00
17-20	Above Average	x1.50	x1.50
21-25	High	x2.00	x2.00
26-30	Very High	x2.50	x2.50
31-40	Fast	x3.00	x3.00
41+	Very Fast	x3.50	x3.50

PHYSICAL STUNTS

Agility is also used for determining the success or failure of difficult acrobatic stunts, jumping, and the rate of speed of physical combat. (See the Difficulty Tables on Pg. 021-022. and the Combat Section on Pg. 114.)

GENERATE AGILITY

For Agility roll 4d6 and subtract 4 from the result.

INTELLIGENCE

INT

Intelligence is the learning ability of the character you design. A lower intelligence may limit the character's initial skill numbers but will in no way make him or her any less of a playable character. (See Skills Pg. 013)

GENERATE INTELLIGENCE

For your character's Intelligence roll 4d6 and subtract 4 from the result.

WISDOM

WIS

Wisdom is the character's ability to use sound judgment in an unusual situation or learn the purpose of items of unknown function. Always roll under your wisdom on a d20 for successful use. Also roll under WIS on a d20 to spot the partially hidden.

GENERATE WISDOM

Your general Wisdom score is found by rolling 4d6 and subtracting 4 from the result.



LUCK

LCK

Luck helps the player-character in adverse situations, mostly when he needs that extra point on the dice to make a fortune or not fall off a thousand foot cliff. It is used at the discretion of the games master. Luck does not effect situations of combat or equipment failure. Luck can be used for repair percentages.

Luck is always a critical roll. Luck adds one or two points to a percent (%) dice roll. Always roll under your Luck for success.

GENERATE LUCK

For Luck roll 4d6 and subtract 4 from the result of the roll.

CHARISMA

CRZ

Charisma is the rating of a character's personality and physical appearance. Charisma is mostly irrelevant when dealing with alien life or the hostile paranormal. (See Also Temperament & Charisma Pg. 165-166.)

GENERATE CHARISMA

For Charisma roll 4d6 and subtract 4 from the result.

THROW

Throw is the character's natural ability to physically propel an object toward a still or moving target in the hope of hitting the target. Always roll under your THR on a d20 to hit a target. Your ability to throw is limited by optional modifiers.

- 01 ATTACKER / DEFENDER MOVEMENT
- 02 SIZE / SPEED OF TARGET
- 03 WEIGHT / SIZE OF THE OBJECT THROWN

CALCULATE THROW

For your ability to Throw, add your ratings of Strength, Accuracy, and Dexterity. Divide the result by 3. Round fractions down to the nearest number. (See Also Pg. 142-143)

$$\frac{\text{STRENGTH} + \text{ACCURACY} + \text{DEXTERITY}}{\text{DIVIDE BY THREE}}$$

THR

ACCURACY

ACC

Accuracy is your base number for any type of projectile weapons combat. Optional combat modifiers are added to this number. Always roll a d20 under your Accuracy to hit. (See Also Pg. 140-144)

GENERATE ACCURACY

For Accuracy roll 4d6 and subtract 4 from the result.

DODGE

DOD

Dodge is the ability to avoid a physical strike or move out of the way of a thrown or dropped object, if not surprised. Arrows and high velocity projectiles cannot be dodged. Always roll under your DOD rating on a d20 for success. (See Also Pg. 021)

CALCULATE DODGE

For your ability to Dodge add your ratings in Strength and Agility. Divide the result by 2, rounding fractions down to the nearest number.

$$\frac{\text{STRENGTH} + \text{AGILITY}}{\text{DIVIDE BY TWO}}$$

ABILITY to DEAL with ALIENS ADA

Ability to Deal with Aliens is the character's ability to adapt into weird customs or environments. This statistic allows you to face non-human beings without squirming or feeling uncomfortable. This is the character's basic index of xenophobia or how he or she reacts and adapts to unusual beings or circumstances in space.

GENERATE ABILITY TO DEAL WITH ALIENS

Roll 4d6 and subtract 4 from the result. This is your score to roll under on a d20 to comfortably fit into alien crowds or not be too startled when interacting with non-humanoid life forms.

HIT POINTS

HPT

Hit Points are the physical structure of your character. Hit Points are the total number of points a character can take in damage before he or she is incapacitated or killed. At 0 Hit Points a character is unconscious. At -03 Hit Points a character suffers deathshock. (See Also Medical Pg. 026-027)

CALCULATE HIT POINTS

Hit Points are the product of Strength added to double your Constitution rating with the addition of a d10. Your character sheet also has the space for a breakdown of your Hit Points by percentage to aid with shock, stun and unconsciousness.

$$\text{STRENGTH} + (2x \text{CONSTITUTION}) + d10$$

PSIONICS

PSI

Psionics is the ability to have an extra range of controllable senses. PSI ability can manifest itself in many forms or combinations of forms.

GENERATE PSIONICS

Go to the PSIONICS section on page 91.

ALIEN TECHNOLOGY USE ATU

This skill is the ability to puzzle out complex alien -built technology and find its use.

GENERATE ATU

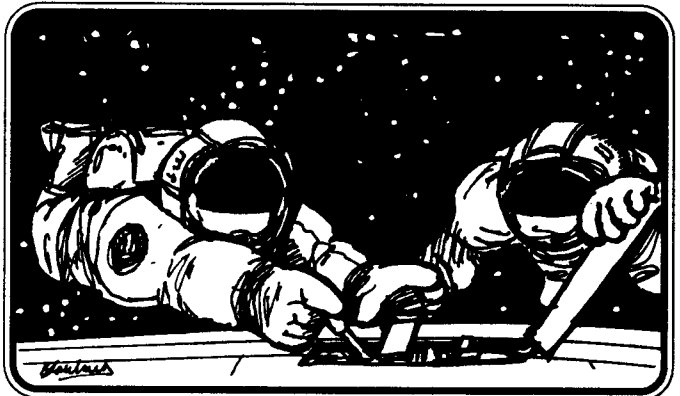
For your ability to use Alien Technology roll 4d6 and subtract 4 from the result. Roll a d100 under this number for successful fast learning use. (See Also Pg. 021-022)

ZERO GRAVITY ACROBATICS ZGA

This is an additional ability that allows a space trained individual to work, move, and function normally in a zero gravity environment.. This may also be used when in slightly reduced gravity or slightly higher gravity to reduce chance of clumsiness or mishap.

GENERATE ZGA

For Zero Gravity Acrobatics roll 4d6 and use the result as your skill level. Roll under this number on a d100 to successfully maneuver in such environments.



MENTAL STABILITY

STB

STB is the character's score of mental stability under harsh or trying circumstances. Always roll a d100 under your STB score to avoid the loss of a few points. The GM is recommended to use this system sparingly or optionally at best. Points can be deducted for any number of general reasons that include:

OPTIONAL STABILITY REDUCTION

Extreme Stress	-1
Serious Lack of Sleep	-1
Eating Fast Food For a Week	-1
Grueling Physical Hardship	-1
First contact with Aliens	-1
Extreme Violence	-1
Contact with Very Alien Life Forms	-2
Blood, Guts and Gore	-2
Alien Cuisine	-2
Contact With Crazies	-1
Seeing Friends Killed	-1
Seeing Friends Killed Horribly	-3
Torture, Mutilation, etc.	-3
Severe Frustration	-1
Severe Physical Trauma	-1
Severe Mental Trauma	-2
First Contact with Mellor	-2
Talking to Vesh	-1

EFFECTS OF STABILITY LOSS

The general loss of STB only means the character is startled, nauseated, upset, or shaken for an action or three. While disquieting, these reactions are not harmful.

WHEN A CHARACTER REACHES 0 STB

Enough horror and disgust eventually takes a toll as the character's STB rapidly falls. When STB reaches 0 roll a d100 on the table below. Each -10 points the character accumulates gains him or her another role on the chart below. Psychological help will also restore d4 points per month at the GM's whim. Roll a d100 for table and a d10 for the problem.

STRESS RELATED PROBLEMS

01-75	MINOR PROBLEM	Table A
76-85	SERIOUS PROBLEM	Table B
86-95	CRITICAL PROBLEM	Table C
96-00	DANGEROUS PROBLEM	Table D

A	MINOR	B	SERIOUS
01	Minor Nervous Tension	01	Depression
02	Wants a Vacation	02	Nervous Twitch
03	Sleeplessness	03	Stops Caring
04	General Indigestion	04	Stomach Disorder
05	Gains Weight	05	Begins to Smoke
06	Loses Weight	06	Eats Too Much
07	Forgetfulness	07	Begins to Drink
08	Nervous Tension	08	Talks to Self
09	Picks up a Weird Hobby	09	Severe Nightmares
10	Becomes Temperamental	10	Becomes Paranoid

C	CRITICAL	D	DANGEROUS
01	Wants to Quit any Association with Aliens	01	Dangerous Recklessness
02	Becomes Compulsive	02	Dangerous Paranoia
03	Severe Depression	03	Becomes Violent
04	Hysteria Over Little Things	04	Hyperactivity
05	Stomach Ulcers	05	Chain Smoking
06	Dangerous Depression	06	Cowardice
07	Alcohol Abuse	07	Becomes Irrational
08	Becomes Threatening in Personality	08	Becomes Trigger Happy
09	Becomes Reclusive	09	Nervous Breakdown
10	Becomes Foolhardy	10	Gains Odd Phobia

GENERATE MENTAL STABILITY

Find your STB by adding your score of Constitution (CON) and Wisdom (WIS) to 50. This score is regenerated with use of acquired skill points. Trade 1 new skill point for d10+2 STB points before your score hits the bottom.

Ben, Bells & Quag

Just out of a lift shaft on docking deck 26 Ben runs into a crowded corridor blocked by Fomalhaut police and a camera crew.

Moving to the side he glances to the core of commotion and sees the investigators probing the dead victim of a knife attack.

The victim was a Barlow, a highly Psionic alien new to human space. Ben notices the green and brown Dog-Like creature has an ICL badge on its carry pack.

Ben has never seen a murder victim before and begins to feel a little queasy.

His normal stability is 87. A d100 is rolled and the result is a 92. Ben's player has failed a stability check.

Ben realizes he's about to loose his lunch and runs for the docking bay where Quag's starship sits. Hand clapped over his mouth, he makes it to a restroom before becoming seriously sick.



STANDING

Standing is the character's general index of personal standing or how others see him or her in their general profession. A security officer with a STN of 2 is not at all that impressive. With a STN of 20 the officer is regarded as very well known. Standing ranges from -20 to 20. Negative standing near -20 also means the player's character has a 'well known' reputation. Unfortunately this reputation is for the wrong reasons. Generally negatives give the individual a reputation of negative character.

THE GM SETS STANDING

Standing is entirely controlled by the GM and is reduced or increased as he or she sees fit.



Ben, Bells & Quag

At the Wapakoneta's docking bay the trio begin the exploration of the outer office. Dust and empty boxes greet them as they pass the reception area and office.

Cycling the doors to the large work bay they find piles of debris and parts from an amazing collection of machines. Bells recognizes parts of several vehicles and an alcohol powered auxiliary power system. The Trell picks up a gold medallion and pockets it. As the overhead lights finally flicker on and the heat kicks in, they discover the bay is long abandoned. The smell of oil fills the air and they find drums of lubricants leaking in one corner.

"A Thousand Bux a day for the bay," whistles Ben as he kicks a piece of debris. "Station authority says we have 30 days of credit left. Registration fees are about 10K and I class as an Engineer."

Cycling the bay view port, all stand in awe of the old Kansas Class Freighter that stands ready for salvage.

"An independent Starship!" smiled Bells, "and I have the command training for ship operations."

They started for the docking umbilical to the ship and started the cycle to pressurize the umbilical.

STN

GENERATING SKILLS

Skills are an integral part of the player character. A skill is a specialized area of knowledge and training developed by your character through study and time.

Each point of skill level gives a player a +5% chance to accomplish a task relating to that skill. Levels for skills range from 0 to a normal maximum of 20. As a character gains experience he can develop existing skills or add entirely new skills.

Every character is assumed to have a general range of skills necessary to survive day to day life. This primary education is taken for granted by the GM.

As the character gains advanced education there is a choice of skill and specialization of educational area.

LEARNING SKILLS

Use the table of skill acquisition to pick the type of knowledge you wish your character to have. Concentrate types of skills in a specific area or have several skill areas of general experience.

HOW DO I LEARN BY?

Skills have five different letter prefixes that designate your character's past method of learning. These include:

CODE	LEARN BY	TIME
W	WORK EXPERIENCE	10 years
T	TECHNICAL SCHOOL	02 years
M	MILITARY EDUCATION	06 years
H	HIGHER EDUCATION	08 years
S	SELF-TAUGHT	05 years

CHOOSE A FIELD OF LEARNING

Choose any one letter for your character's education, then any skills with that letter prefix. Any additional Military Training allows the character to use skills with the prefix M.

Self-taught skills are the hardest way to acquire skills. These are mostly for the character who wants a special skill not in the realm of his or her education. The initial taking of a Self Taught skill requires that skill to start at a level of 1. As a character gains skill levels, this skill has no penalty for development.

REMEMBER

- 01 Extra Legal skills are always self-taught skills. Many of these skills are beneficial for characters in highly adverse situations. (See Also Pg. 020)
- 02 Medical skills require a slightly different process to create than normal skills. If you decide to become a doctor, go to the Medical Skills section. (See Also Pg. 26)
- 03 General military training requires a short stint in the Armed Forces. While adding a few years to age, it gives a small number of bonuses. (See Military Training Option on Pg. 024)
- 04 Characters may have a skill or natural talent with a skill level bonus. Any creative talents have a 15% chance of existing in a character.

HOBBY

+1 Skill Level on any 2 hobby type skills.

LONG USED SKILL

+1 Any 1 skill in semi-constant use or occupation.

CREATIVE TALENT

+2 Any Creative Type Skill (This may include art, writing, music etc.)

CHOOSE YOUR PRIMARY SKILL

Choose a primary occupational skill. Your starting level for this skill is d4 +4.

CHOOSE YOUR 2 SECONDARY SKILLS

Choose two skills that relate to or help you in this primary skill. Start the level of these skills as d4 +2.

CHOOSE THE REMAINDER OF YOUR SKILLS

Index from the player character's intelligence to find the number of additional types of skills you may choose. Try to relate these skills to your primary skills, but do not forget hobbies or special areas of interest. Start the level of these skills as a d4.

HOW MANY SKILLS DO I START WITH?

The number of starting skills is determined by the character's intelligence.

INTELLIGENCE	SKILLS
01-04 Slow Learner	06
05-09 Average Learner	12
10-16 Excellent Learner	15
17-19 Fantastic Learner	19
20-21 Genius	22
22-24 More Than Human	26

OPTIONAL AGE BONUS

To round out a character due to age and years of experience, subtract 21 from the character's age. The remaining number will be extra skill points to improve skills or choose new ones, once the character is finished.

$$(AGE) - 21 = SKILL POINT BONUS$$

Ben, Bells & Quag

Ben's old skill of Phase Electronics is his primary skill. His two other related skills are Higher Math and Drive Tuning. He gains a bonus (+1) in his skill of Phase Electronics because it was his occupation. He also adds a (+1) bonus to his minor Antique Computer Repair skill because he considers it a hobby.

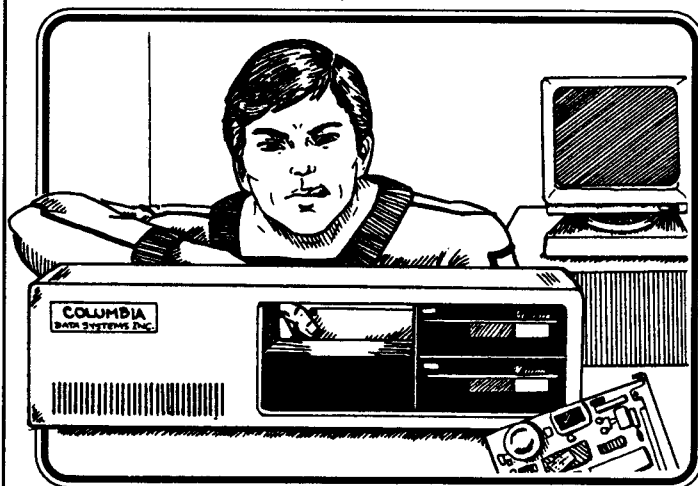
SKILL	LEVEL	% SUCCESS
Phase Electronics	09	45%
Higher Math	04	20%
Phase Tuning	05	25%
Computer Repair	03	15%

Ben's player now chooses 15 additional skills because of his Intelligence of 11. For each of these new skills he rolls a d4 to determine their starting level. He adds a (+1) to Computer Repair as a hobby bonus as he likes to work on 'old comps'.

WHAT IS A SKILL LEVEL?

Skill levels (0 to 20) are a measure of the character's ability to perform a specific task. Each point of skill level is worth +5% on the attempt to successfully accomplish such a task.

Difficulty ratings are the toughness of a task a player character wishes to accomplish.



HOW DO I USE SKILLS?

All skill attempts of any importance have GM rated difficulty potential. This is the number a player must roll under on a d100 to accomplish the task successfully.

This number for success is modified by resources available, time, and situation. Remember that all modifiers are optional for the GM's use.

REMEMBER

- 01 Each point of a skill your character has is worth +5% toward your needed number.
- 02 Related skills from a single player can be combined for the attempted task under the discretion of the GM.
- 03 Skills can not be combined with like skills from other players. The highest skill level that is available is the level used for the task attempt. Each player helping adds +1% to the final totals.
- 04 Only by the GM's decision can the luck roll be used where an attempted percentage roll fails and falls short by one or two points.
- 05 An unmodified die roll of a 01 on a d100 is always a complete success. A roll of 00 is always a crashing failure.

OPTIONAL STATISTICS IMPROVEMENT

Even if your character is a bit under-developed or lacking in the characteristics you think are important, you still have the chance to develop your character as he or she gains experience. First read the Experience and Skill Point System, develop your character's education, then return here.

BODY BUILDING

As a character gains experience and moves to higher plateaus of development, he or she gains skill points to improve education. These gained skill points will also allow a character to develop personal statistics to a higher level.

REMEMBER

- 01 Statistics can only be improved after the character has gained experience and higher levels.
- 02 Skill points gained can be used for improvement with the listed costs.
- 03 There is no trading skill points back or accumulation from one level to the next.
- 04 Only the statistics of Strength, Dexterity, Constitution, Wisdom and Agility can be developed.
- 05 Throw and Dodge statistics are refigured after physical statistics are improved.
- 06 Hit points are not refigured.
- 07 Improving Accuracy is a specific skill relating to firearms familiarity. (See Also Pg. 144)
- 08 Statistics cannot be improved over 15.

COST OF IMPROVING STATISTICS

This cost is in earned skill points or points from use of the age bonus. (See Also Pg. 013)

CURRENT STATISTIC	PER POINT OF INCREASE
0 to 05	1 Point
06 to 09	2 Points
10 to 13	4 Points
14 to 15	6 Points

Ben, Bells & Quag

Bells, with a strength of 11, begins to develop her few muscles with body building exercises and at the point of changing from third to fourth level gains 7 skill points for use.

With four points she raises her Strength from 09 to 10, with the second two points she raises her Constitution from 9 to 10. To raise his strength from 10 to 11 will take 4 skill points. She only has a single point left until she gains a few thousand more experience points.

Bells' final point is allocated to improving his skill of target shooting.

MARTIAL ARTS BONUS

The taking and developing of martial arts skills can add a +1 on Agility "use" per 5 levels of Martial Arts skill. (See Martial Arts Pg. 115)



OPTIONAL SKILL EXPERTISE

As you know, the general maximum of a skill level is 20 or 100%. Characters who wish to gain even more knowledge in a field can develop the talent beyond level 20 with acquired skill points. The cost for each level beyond 20 is 10 skill points. The following titles are the rough divisions of expertise of a skill.

Level	Title
01-05	GENERAL KNOWLEDGE
06-10	GOOD KNOWLEDGE
11-15	EXPERT
16-20	MASTER
21-25	DEVELOPMENT EXPERT
26-30+	THEORETICAL RESEARCHER

RATING DIFFICULTY

The difficulty rating is the measurement of difficulty of an attempted task. It can be used for fabrication, repair or feats of agility and dexterity.

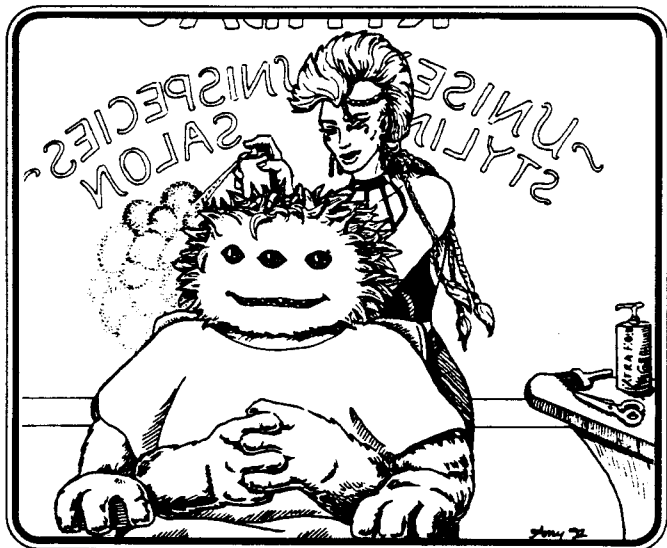
DIFFICULTY RATING	PERCENT CHANCE OF SUCCESS
01	+95% + Skills +/- optional modifiers
02	+80% + Skills +/- optional modifiers
03	+65% + Skills +/- optional modifiers
04	+35% + Skills +/- optional modifiers
05	+20% + Skills +/- optional modifiers
06	+05% + Skills +/- optional modifiers
07	+ 0% Skills +/- optional modifiers
08	-05% + Skills +/- optional modifiers
09	-20% + Skills +/- optional modifiers
10	-35% + Skills +/- optional modifiers
11	-65% + Skills +/- optional modifiers
12	-80% + Skills +/- optional modifiers
13	-95% + Skills +/- optional modifiers

SKILL TYPES

The following are a list of possible skills a character can have. Feel free to add more or alter them to fit what you need to design the character you want. If you can't find the skill you want, simply create the specific skill with the GM's approval.

A

- ABNORMAL PSYCHOLOGY** H M S
The study of deviant social behavior in humans, aliens, or animals. Requisite (Psychology)
- ACCOUNTING** W H M S
The ordered process of keeping track of funds earned and spent by a single source or business. Become a CPA at Level 6.
- ADMINISTRATION** W T H M S
The operation or directing of a government agency or business.
- AIR SEA /SPACE NAVIGATION** T M S
The ability to direct the course of a craft with at least moderate accuracy over distances.
- AERODYNAMICS** T H M S
The study of the forces acting on bodies in air or liquid. Requisite (Aeronautics)
- AERONAUTICS** T H M S
The study of the operation of aircraft, their operation, flight, and manufacture.
- AGRICULTURE** W T H M S
The science and application of farming.
- ANIMAL HUSBANDRY** W T H M S
The care and use of domestic animals.
- ANIMAL TRAINING** W H M S
The behavioral training of domestic or wild animals for a specific purpose.
- ANTHROPOLOGY** H M S
The science of man, his cultures, origins and general development. Requisite (Sociology)
- ARCHAEOLOGY** H S
The study of past life and civilization as revealed by relics left by ancient peoples. Requisite (Anthropology)



- AQUATIC VEHICLES TECHNOLOGY** T M
The care, operation, and repair of aquatic vehicles and equipment. Requisite (Engineering 2 & Aquatics 4)
- AQUATICS (Diving)** M S
The study and use of artificial aids to survive under water. Requisite (Swimming 3)
- ARCHERY TECHNOLOGY** H M S
The care and use of archery type weapons, including design and construction.
- ARCHERY** H M S
Every 3 levels of archery give accuracy a +1 in the use of bow type weapons only.
- ART, COMMERCIAL** T H M S
Use of art for commercial applications.
- ART, DRAFTING** W T H M S
The specific use of technical drawing for use in industry.
- ART, PAINTING** T H S
Application of pigments to a flat surface to form an idea or concept.
- ART, SCULPTURE** T H S
The creation of three dimensional objects to form an idea or concept.
- ART, HISTORY** H S
The history and styles of art forms, including painting, sculpture and other aspects.
- ASTRONOMY** T H M S
The study of stars, planets, and phenomena of space. Requisite (Mathematics 3)
- ASTROPHYSICS** H M
The physics of outer space, the operational and theoretical mechanics and chemistry of stars and planets. Requisite (Higher Math 3)
- ATMOSPHERICS (Weather)** T H M S
The science of weather, its structure, effects, cause and often its prediction.

B

- BANKING** W H
The operation of custody, loan or exchange of currency or valuables.
- BALLOON TECHNOLOGY** H M S
The building, maintenance and piloting of lighter than air or hot air balloons.
- BARBERING** W T M S
Cutting hair and hair styling.
- BIOCHEMISTRY** T H M
The basic chemistry of carbon based living things, may include analysis and practical use. Generally requires use of sophisticated equipment. (Requisite Chemistry 3)
- BIOLOGY, ANIMAL** H S
The study of the general or specialized structure and living processes of animals.
- BIOLOGY, HUMAN** H M S
The study of the general or specialized structure and living processes of humans and humanoids.
- BIOLOGY, MARINE** H M S
The study of aquatic life.

Tri Tac Games

BLADE FIGHTING	M S
Use of this skill in combat gives a +1 to hit per three levels of this skill only when knife fighting.	
BLADE WEAPONS TECHNOLOGY	W H M S
Design and manufacture of blade weapons.	
BOATING, SMALL	W H M S
The operation and use of small boats.	
BOATING, LARGE	W T H M S
Operation and use of larger boats or small commercial boats with less than 10 crewmembers.	
BOATING, LARGE COMMERCIAL	W T H M
Operation of a large commercial freighters with more than 10 crew members.	
BOATING, SAIL	W T H M S
The operation of sailboats.	
BROKERAGE, COMMERCIAL	W H S
The agenting of merchandise for resale.	
BUSINESS LAW	H M
The complex branch of law that specifically deals in business applications.	

C

CALLIGRAPHY	W T H M S
The art of elaborate hand lettering.	
CERAMICS, CLASSICAL	W T H M S
The design and creation of ceramics in the form of tiles, pots, and functional shapes.	
CERAMICS, INDUSTRIAL	W T H M S
The application of ceramics in industry for special high-tech uses.	
CHEMISTRY, GENERAL	W T H M S
The general use of basic chemistry in research or chemical analysis.	
CHEMISTRY, ORGANIC	T H M
The chemistry of organic molecules, their analysis and applications. Requisite (Chemistry 3)	
CHEMISTRY, INORGANIC	T H M
The chemistry of non-carbon compounds. Requisite (Chemistry 3)	
CHILD CARE	W H M S
The care and feeding of children with some emphasis on psychological and social growth.	
CIVIL ENGINEERING	T H M S
Any engineering relating to large public works and complex construction. Requisite (Engineering 3)	
CIVIL LAW	H M S
Law relating to the public or individual.	
COLD SURVIVAL	M S
The ability to survive in dangerously cold areas, finding food, shelter, and heat source.	
COMMANDO TRAINING	M S
Training to fight and survive in hostile surroundings. Every 5 levels of this skill add a +1 to hit with blade, projectile, and special weapons. This also adds 5% for any use of survival training or combat agility.	
COMMUNICATIONS TECHNOLOGY	W T H M S
The design, repair and use of civilian or military communications equipment. Requisite (Electronics 3)	

COMPUTER PROGRAMMING	W T H M S
The skill of computer programming in one or a number of the various computer languages.	
COMPUTER OPERATION	W T H M S
The operational skills of using a computer for work and recreation.	
COMPUTER RESEARCH	W T H M S
The ability to effectively use a computer to locate files and needed data from variable databases. Requisite (Computer Operation 2)	
CORPORATE MANAGEMENT	W H
The special ability to manage the operation of a large corporation or diversified business interests.	
CORPORATE STRUCTURE	W T H M
The study of corporate management and the structure of large business.	
COSMETOLOGY	W T H S
The use of artificial aids to mask, enhance, or change the structure or appearance, often disguise.	
CRIMINAL INVESTIGATION	W H M S
The investigation of any illegal activities, with technical or general techniques.	
CRIMINAL LAW	W H M S
The specific branch of law dealing with the criminal's defense and prosecution.	
CRIMINAL SCIENCE	W T H M S
The science dealing with criminal activity and low or high tech techniques for information gathering.	
CRYPTOLOGY	M S
The science of encoding or breaking codes that hide special or valuable information.	
CRUDE WEAPONS	M S
The design and building of crude, natural or very simple weapons for use. These improvised weapons also include traps for animals or man.	
CRYOGENICS	T S
The infant science of the preservation and storage of human and animal life through ultra-cold temperatures.	
CUISINE	W T H S
The art and chemistry of the complex alteration of food for consumption. Basic to advanced cooking.	

D

DANCING	W H S
The art of movement (usually to music) for entertainment or social function.	
DATA MANIPULATION	W T H M S
The use of information storage and retrieval to find specific needed information. This skill is predominately for use with computer systems or automated library retrieval systems. Requisite (Computer Operation 3)	
DATING	W T H S
The art of romance and social interaction. This may be in public or private.	
DEMOLITION TECHNOLOGY	W T M
Knowledge and procedures of using explosives. May include handling, storage and manufacture. May also be used to disarm simple explosive packages.	

- DEMOLITION USE** WTMS
Effective use of high explosives to demolish or damage varied structures.
- DESERT SURVIVAL** MS
The ability to survive in hot climates, to find food, water, and shelter in areas of dangerously high and sometimes cold temperature.
- DIPLOMACY** HMS
The art of negotiation between warring or disagreeing parties with emphasis on peaceful resolution.
- DOMESTIC TECHNOLOGY** WHS
The management of living areas and conditions in homes or apartments; general living skills.
- DOMESTIC TRADE** WTHS
Retail and trade on the domestic scale; small scale trade.
- DRAMA, THEATER ARTS** WHS
The art of creating the illusion of being someone else for general espionage or entertainment purposes.

E

- ECOLOGY** WHS
The study of nature, the relationships between varied organisms and their environment.
- EDUCATION** HM
The ability to teach a subject, to make learning effective.
- ELECTRONIC DIAGNOSIS** WTHMS
The ability to find simple or complex problems and flaws in electronic equipment.
- ELECTRONIC ENGINEERING** WTHMS
The general design and repair of large or small electronic equipment.
- ELECTRONICS, MICRO** WTHMS
The function, design, cleaning, and repair of high-tech electronic sub-miniature components.
- EMERGENCY MEDICAL CARE** WTHMS
The ability to cope with emergency medical problems and trauma ranging from simple cuts to the resuscitation of life.
- ENGINEERING** WTHMS
Specialized science of the construction, mechanics, and design of buildings, goods, and machines.
- ENTERTAINER** WHS
The skill to entertain or amuse small or large numbers of people with a talent or developed ability. Characters have a 5% chance of a Special Natural Ability that starts their Entertainment talent area at (4 +d4) in skill level.
- ENVIRONMENTAL ENGINEERING** WTHMS
Creation or design of a specific type of environment and its day to day maintenance.



WHAT IS A TALENT?

Talents are natural abilities that enhance specific skills or serve as a special skill. Remember your character has a flat 5% chance of having a random talent. Add a 5% chance if either of the character's parents has a special talent or 10% if both of the parents have special talents. If both parents have the same talent there is a 50% chance the character will also have that talent.

TALENT EXAMPLES

01 Voice	08 Comedy	15 Art
02 Gymnastics	09 Craft	16 Sport
03 Writing	10 Music	17 Memory
04 Getting in Trouble	11 Cooking	18 Balance
05 Out of Trouble	12 Mechanical	19 Logic
06 With Animals	13 With Plants	20 Language
07 Dramatic Reading	14 Psychology	

F

- FABRICATION, METAL** WTHMS
The design and creation of metal parts.
- FABRICATION, WOOD** WTHMS
The design and creation of wooden parts.
- FABRICATION, PLASTIC** WTHMS
The design and creation of plastic parts.
- FASHION** WHS
The design and construction of clothing for daily use or the creation of costumes.
- FENCING** HMS
Combat skill with foil or saber that adds a +1 on hit ability per three levels of fencing skill with specific weapons.
- FIGHTER PILOT** M
The complex skill to fly and effectively use the weapons of military fighter type aircraft. Requisite (Pilot Fixed Wing 6, Pilot Jet 6, and Air Sea Navigation 3)
- FINANCE** WTHMS
The ability to manipulate large or small sums of money for loan or profit. Requisite (Banking 3)
- FLUID SYSTEMS** WTHMS
The technology and characteristics of the motion of liquids under pressure including plumbing, steam, or coolant. This may include waste disposal.
- FOOD PROCESSING** WTHMS
The mass processing of food material for consumption by large numbers of people.
- FOREST SURVIVAL** HMS
The ability to find food and shelter in most light or dense forest type environments.
- FUSION TECHNOLOGY** THM
The design, operation, and maintenance of fusion type power systems. Requisite (Electronics 6, Physics, Laser Technology, Computer)

G

- GEOGRAPHY** HMS
Science that deals with quantifying natural features, climate, and products of the earth or earth-like worlds.

Tri Tac Games

GEOLOGY T H M S
The science that deals with the history of a world as shown through rock and physical structure.

GLIDER TECHNOLOGY H M S
The design, repair, and flight characteristics of ultra-light aircraft, glider or powered.

GRENADÉ WEAPONS M S
The creation, effective use, and disarmament of most grenade type weapons.

GUERRILLA TACTICS M S
Tactics for any quiet subversion. Usually a small unit that fights intermittently.

GYMNASTICS W H M S
Long physical training and exercise that improves the overall flexibility and movement of the body.

H

HEALTH CARE W T H M S
The care of people, the prevention or general treatment of health problems.

HEAVY EQUIPMENT OPERATION W T M S
The ability to operate heavy industrial equipment that may include cranes, bull dozers, graders, lifts, etc.

HISTORY H M S
The study of the happenings, causes and effects of past events. Sometimes a specialized area is specified.

HORSEMANSHIP W H M S
The ability to ride a horse with skill, as well as care for the horse and tack.

I

INTERIOR DESIGN T H S
The effective and creative / functional design of the interior of structures, arrangement of space and the general appearance.

INTERROGATION M S
The removal of needed information from an individual by force, trickery, or psychology.

J

JOURNALISM W T H M S
Creative writing to convey information through news, story, or audio-visual means.

JUNGLE SURVIVAL M S
The ability to find shelter and food in jungle and rain forest areas.

L

LABOR RELATIONS W H M S
The ability to mediate between workers and management in a business.

LANGUAGE (Additional) W T H M S
An additional language may be added to the player character instead of additional skills. (See Also Pg. 24)

LASER TECHNOLOGY W T H M S
The building, repair, and general use of lasers for many purposes. Requisite (Electronic Engineering 3)

LAW ENFORCEMENT H M
The codes, laws, and practical use of the techniques of modern law enforcement. Requisites may include (Criminal Science 4, Criminal Investigation 4, Criminal Law 1 and Martial Arts 1)

LIFESAVING W T H M S
The ability to attempt saving a life in a situation of heart attack, drowning or some form of asphyxiation. Requisites generally are related to the nature of the trauma. (See Medical Pg. 026)

LINGUISTICS H M
The study of language, its structure, use and history. Studies may be specialized to a related family of languages.

M

MARKETING W T H S
The skill of selling a product, to make it competitive across a wide market.

MARTIAL ARTS H M S
See Martial Arts in the Damage Section. (See Also Pg. 115)

MATHEMATICS T H M S
The ability to use math up to algebra.

MATHEMATICS, HIGHER H M
Higher math that can border on theoretical. Requires (Math 5) as a prerequisite.

MECHANICAL DIAGNOSIS W T H M S
The ability to diagnose, locate, and repair common mechanical problems in familiar equipment.

METALLURGY T H M
Knowledge of construction metals, their structure, strengths, and limitations. Requisite (Chemistry 4)

MICROWAVE TECHNOLOGY T H M
The use of microwaves for communications and industrial work. Requisite (Electronic Engineering 3)

MOUNTAIN CLIMBING H M S
The skill of scaling sheer rock faces.

MORTUARY SCIENCE W T H M S
The science of preservation of the dead. Requisite (Human Biology 2, Cosmotology 3)

MUSIC TECHNOLOGY W T H S
The understanding of music, techniques, instrument repair, and the mechanics of sound.

MUSIC PERFORMANCE H S
The ability to masterfully play an instrument of a specific type. Requisite (Music Technology 3)

N

NUCLEAR PHYSICS T H M
The science of the atom and its structure. Relating to atomic theory and applications for industrial and the production of nuclear weapons. Requisite (Higher Math 5, Physics 4, Chemistry 4)

NUCLEAR WEAPONS TECHNOLOGY H M
The use and repair of nuclear weapons.

NURSING W T H M
This medical assistance skill aids use of Medical skills with a +5% per 3 levels. Requisite (Emergency Medical 4, Chemistry 5, Health Care 5 and Human Biology 4)

O

- OCEANOGRAPHY** T H M S
The study of the living ocean, its environments, life, and structure.
- OPTICS** T H M S
The science that deals with the nature and properties of light.

P

- PHILOSOPHY** H S
A critical study of fundamental beliefs and the grounds for them.
- PHOTOGRAPHY** W T H M S
The use of equipment to capture stationary images on a sensitized or magnetic surface.
- PHYSICAL SURVEILLANCE** M S
To watch or spy without detection.
- PHYSICS** H M S
The science of the natural laws of matter, light, motion, energy, and sound.
- POLITICAL SCIENCE** H M S
The art or science of influencing, guiding, or the taking control of a government.
- PROJECTILE WEAPONS TECHNOLOGY** W T H M S
The ability to repair and maintain a firearm. At PWT 6 the character gains the title of Gunsmith. This does not improve the Accuracy of the character.
- PUBLIC SPEAKING** H M S
The science of talking to large numbers of people and holding their interest through use of voice or action.
- PSYCHOLOGY** H M S
The science of understanding the mind and behavior. May include the study of behavior modification.

- PILOT, MOTOR VEHICLE** W T H M S
The driving of most motor vehicles. At a level of 1 any automatic transmission. any manual at 3, antique at 5, and high speed racing vehicles at 7.
- PILOT, HEAVY MOTOR VEHICLE** W T M S
The driving of larger or commercial motor vehicles that include busses, semis, and large transports.

- PILOT, ULTRALIGHT AIRCRAFT** H M S
The piloting of ultralight aircraft.
- PILOT, FIXED WING (PROP)** T H M
The flying of any prop driven aircraft with a requirement of 2 skill levels per engine of the aircraft flown.
- PILOT, JET** T H M
The piloting of a jet aircraft requires the skill of (Pilot, Fixed Wing 6) as prior training. The user must have 2 levels of Jet Pilot per engine of aircraft flown.
- PILOT, ROTARY WING** T H M
Piloting of helicopters requires the skill of (Pilot, Fixed Wing 4).
- PILOT, HOVERCRAFT** T M S
Piloting air cushion or ground effect type vehicles.
- PILOT, ANTIGRAV** W S
The skill of piloting anti-grav vehicles that range from small to semi-truck sized.

R

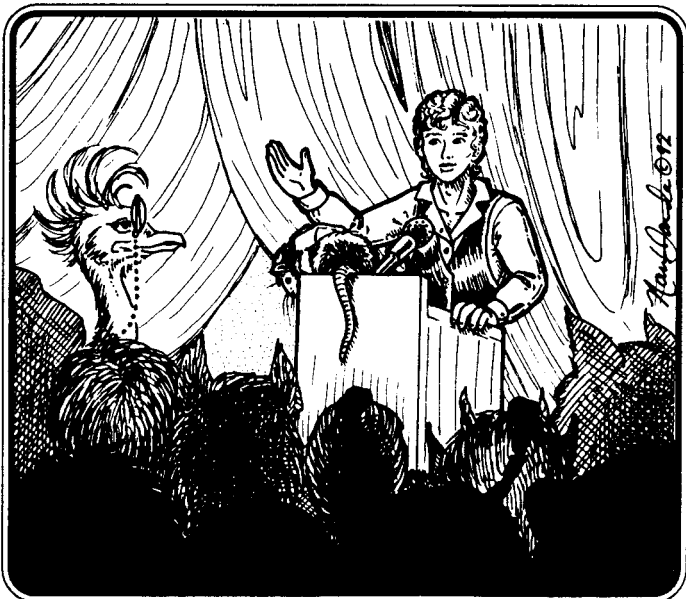
- RELIGION** W H S
Study of beliefs that relate to higher forces.
- RETAIL SCIENCE** W T H M S
The science of selling on a small or large scale.
- ROBOTICS** T H M S
The science of robot technologies; to design, repair or build.

S

- SANITATION ENGINEERING** W T H M S
The design and maintenance of sanitation systems.
- SECURITY** W T H M S
The protection of man or property.
- SKIING** W T H M S
The ability to ski on snow or water.
- SOCIOLOGY** H M S
The science of understanding societies.
- SOLAR ELECTRIC TECHNOLOGY** W T H M S
The technologies of converting sunlight to electric power and heat.
- SPORT** W H M S
A skill in a single sport such as baseball, pool, tennis, etc.
- STRUCTURAL ENGINEERING** T H M
The design and repair of large or small structures, bridges, buildings, etc.
- SWIMMING** W H M S
The ability to move through water effectively and to survive without drowning.

T

- TAX LAWYER** T H M
Branch of law dealing with taxes.
- TACTICS** M S
The use of tactics gives a +5% per three levels of skill when dealing with large military situations. Use this skill for insight into the enemy and his planning.



U

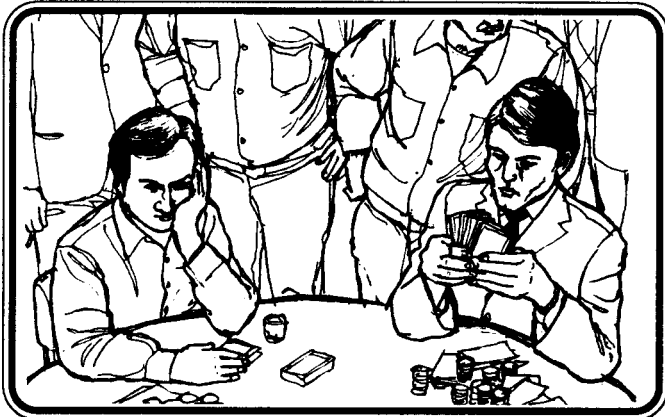
- ULTRALIGHT AIRCRAFT TECHNOLOGY** W T H M S
The design and repair of ultralight craft.
- UNDERSEA ENGINEERING** T H M
Engineering under water and pressure.
- UNDERSEA SURVIVAL** H M
Skill of surviving undersea mishaps.

V

- VEHICLE REPAIR, AUTO** W T H M S
The repair of common and uncommon problems of motor vehicles, gas, turbine, electric, or diesel.
- VEHICLE REPAIR, AIRCRAFT** W T M
General maintenance of aircraft. Repair Ultralights at a level of (2), Fixed Wing at a level of (4), Jet aircraft at a level of (6), Fighters at a level of (8), and most Large Transport or Commercial Airliners at (10).

W

- WEAPONS, MILITARY LIGHT** M S
The effective maintenance and repair of any light military weapons. This may include pistols, rifles, sub-machine guns, and light machine guns.
- WEAPONS, MILITARY HEAVY** M
Effective maintenance and repair of complex weapons and weapons systems.



EXTRA LEGAL SKILLS

The following is a general list of self or criminally taught skills and knowledge that a character might have or wish to develop for use in espionage. These skills, while not normal skills of the typical character, can be handy in any adverse situations.

Extortion	Illegal Gaming	Fraud
Espionage	Assassination	Forgery
Assault	Computer Crime	Smuggling
Pickpocketing	Organized Crime	Terrorism
Tax Evasion	Booking (bets)	Procurring
Safe Cracking	Drug Traffic	Arson
Kidnapping	Counterfeiting	Traps
Petty Theft	Grand Theft	Brawling
Breaking & Entering	Diversion	Demolition
Poisons	Vehicle Theft	Sabotage
Electronic Countermeasures		

SPECIAL 'SPACE SURVIVAL' TRAINING FOR NEW CHARACTERS

As the characters are indoctrinated into their new life of high adventure, they receive an added number of skills found by adding 2 to a d4 roll. These skills start at a level of d4 and can be developed like normal skills. Each additional skill they wish to take from this list costs the character 10,000 d's and takes a year to complete the training course. During that year their skill level is 0 and after it can be developed like any normal skill.

REMEMBER

- 01 Add 2 + d4 new skills from the Special Skills table listed below. Add them only after the character has gained 1000 experience points.
- 02 Start these new skills at a level of d4 as normal skills.
- 03 Develop these skills normally.
- 04 A character can take these as normal skills later.

SPACE TRAINING

- 01 ALIEN PSYCHOLOGY, CUSTOMS, & WORLDS
The ability to understand alien social interaction.
- 02 COLONIAL LIFE
Understanding of life, needs, and problems of colonists on new worlds.
- 03 CORPORATIONS IN SPACE
History, practices, and law relating to mega corporations in space.
- 04 EMERGENCY INTERSTELLAR MEDICINE
The effective treatment of human and alien trauma victims on worlds and in space.
- 05 VAC SUIT USE & EMERGENCY REPAIR
Use, maintenance, and the repair of most common Vac Suit designs.
- 06 SPACE LAW
Study of common laws across space with emphasis on cargo, passengers, economics, alien court systems, and common problems.
- 07 HOSTILE ENVIRONMENTS SURVIVAL
Survival in new or hostile environments.
- 08 STARSHIP ENGINEERING
General maintenance and function of a starship, its common problems and repair.
- 09 FUSION DRIVE ENGINEERING
Maintenance and repair of Fusion Engines.
- 10 PHASE DRIVE ENGINEERING
Maintenance and repair of FTL drives.
- 11 STARSHIP MANAGEMENT & COMMAND
Starship management, operations and command.
- 12 SHUTTLE PILOT
The ability to pilot shuttles in an atmosphere and in space. Requisite (Jet Pilot 4)
- 13 EXPLORATION & ALIEN CONTACT
Laws and regulations of exploration and alien contact.

GM's NOTES

- 01 If you can't find the specialized skill you need, create it with your GM's help.
- 02 Similar or same skills can have very different names. Cuisine, Chef, Culinary Expertise, Grill Rat, and Grub Slings are all the same general name for Cooking. Don't let the specific terminology scare you as you design skills. Use imagination.
- 03 Work with your GM when you design new skills to avoid those nasty terminology problems later on.

Ben, Bells & Quag

As the trio turn the corner of the docking umbilical they see the pitted airlock of the ship they plan to turn into an Independent Freighter.

As Bells presses the cycle button to open the lock a curl of smoke rises from the control pad. Pushing the button again, Bells jams it solidly.

Ben decides to repair the lock. Skills that relate to the project are:

(Related Skills)

Electrical Diagnosis 5 (25%) Electrical Repair 4 (20%)

The GM assigns the difficulty of the Lock Diagnosis as a 5, or a 20% chance of success (plus the percentages of the related skills of Electronic Diagnosis. Ben's total chance of success is 40%.

Ben's player must roll a 40 or under on a d100 for successful 'easy' diagnosis of the problem. A 24 is rolled, and the problem is understood. A corroded door latch module is the culprit. Repair is another matter.

Again, the GM assigns the difficulty of operation as a 5, or again, a 20% chance of success. Ben's related skill of Electrical Repair give him an added 25% chance of success. His pocket tool kit adds another +10%. All told, Ben has a 55% chance of jury-rigging the airlock.

Ben's player rolls a 96, failing miserably. The resulting flash tells him a new module is needed.

With the purchase of a packaged How-To kit +15% and Complete Information +10% on the old lock his percentage to repair it rises to 80%.

With a 80% chance to succeed, Ben holds his breath pushes the cycle button. A 44 is rolled and the hatch opens.

"What a stench," exclaims the Trell.

SKILL & DIFFICULTY RANDOMIZATION

This chart allows for the easy randomization of difficulty by generating a level of difficulty from general information.

REPAIR DIFFICULTY	LEVEL
Simple Repair or Fabrication	d4
Repair or Fabrication	d4 +1
Complex Replacement	d4 +2
Complex Fabrication	d4 +3
Very Complex Replacement	d6 +3
Very Complex Fabrication	d6 +4
Speciality Fabrication / Repair	d6 +6
Unlikely Fabrication or Repair	d6 +7

AGILITY DIFFICULTY	LEVEL
Easy Acrobatics	d4
Moderate Acrobatics	d4 +1
Difficult Acrobatics	d4 +2
Almost Impossible Acrobatics	d4 +4
Impossible Acrobatics	d6 +4
Unlikely Acrobatics	d6 +5
Ridiculous Stunts	d6 +6
Really Stupid Stunts	d6 +7

REPAIR / FABRICATION	MODIFIER
01 Lack of Tools	-05%
02 Lack of Technology	-10%
03 Lack of Materials	-10%
04 Fabrication Under Stress or Combat	-05%
05 Fabrication in Hostile Environment	-10%
06 Old Parts, Undependable	-10%
07 Lack of Instructions	-10%
08 Complete Tools Available	+10%
09 Complete Information Available	+10%
10 Prepackaged "How-To" Kit	+15%
11 Familiar Design	+15%
12 Semi-Familiar Design	+05%
13 Unfamiliar Design	-05%
14 Something Never Attempted	-10%
15 More Than Three Failures at Attempt	-10%
16 More Than Six Failures at Attempt	-20%
17 Semi-Foreign Design	-10%
18 Foreign Design	-15%
19 Totally Alien Design	-20%
20 Archaic / Old Design	-05%

AGILITY / DEXTERITY MODIFIERS

A character's Agility or Dexterity may be used in the same way as a skill level to accomplish a difficult acrobatic or balance-saving feat. Each point of a character's Agility is worth a +5% in an attempt. An average character with an Agility Score of 10 has a 50% chance, without modifiers, to accomplish an AGL or DEX move. Always roll under this percentage on a d100 for success.

AGILITY / DEXTERITY	MODIFIER
01 SIMPLE	+15%
Attempt at a well known activity while under no stress.	
02 EASY	+05%
Character plans a moderately complex action in a non-stress situation.	
03 AVERAGE	+0%
The character plans a complex action in a moderate stress situation.	
04 COMPLEX	-10%
Character plans a very complex action in a high stress situation.	
05 HARD	-15%
Action attempted for the first time without practice.	
06 SERIOUS WOUND	-20%
Character has been wounded and has less than half hit points remaining.	
07a WEIGHT BURDEN	-10%
Character is under a weight burden.	
07b UNUSUAL GRAVITY	-10%
Includes both heavy or light gravity situations.	
08 UNUSUAL WEATHER	-10%
Character in severe weather, storm, cold, snow, etc.	
09 LIMB WOUND	-15%
Character is wounded in the arm or leg.	
10 SICK	-25%
Character has less than half of his or her constitution remaining.	

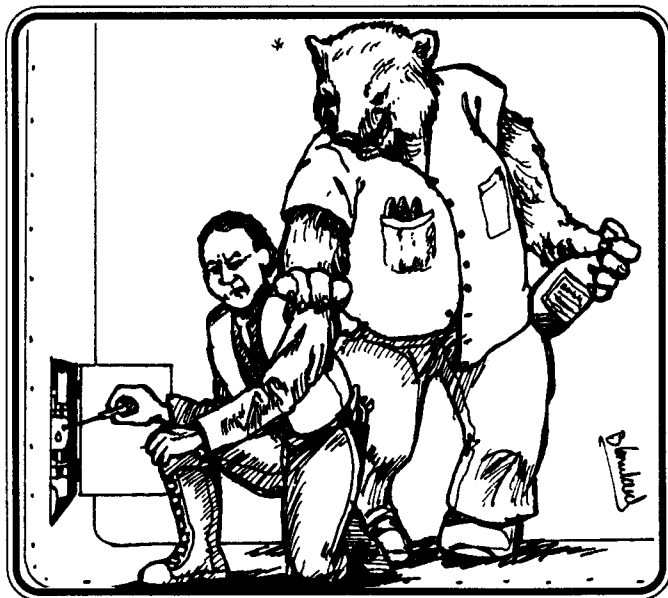
REMEMBER

01 These modifiers are options for the GM or players to use at the GM's discretion.

OPTIONAL PERSONAL / STRESS MODIFIERS

These modifiers are optional for personal difficulty. The GM may wish to use them for special situations. They can apply to most repair, fabrication, dexterity, and agility feats.

HEALTH	MODIFIER
01 Fresh, Healthy	+05%
02 Very Healthy	+03%
03 Healthy	+01%
04 Sick	-03%
(Character at 75% of Constitution)	-05%
(Character at 50% of Constitution)	-10%
(Character at 25% of Constitution)	-15%
(Character's Been Shot)	-25%
(Character's Been Physically Abused)	-15%
(Character's in Shock)	-30%
05 Tired	-05%
06 Pushed to Limit	-10%
07 Under Effects of Drugs	-10%
08 Tipsy (drunk)	-05%
09 Drunk	-20%
10 Roaring Drunk	-40%
PSYCHOLOGICAL	
01 General Annoyance	-02%
02 Continued Annoyance	-05%
03 Rampant Annoyance	-08%
04 Total Annoyance	-10%
05 Pain, Light	-05%
06 Pain, Heavy	-10%
07 Stun, Light	-15%
08 Stun, Heavy	-40%
09 Forced Against Will	-05%
10 Forced at Gunpoint	-10%



EASY SKILL USE

A very simple alternate method of using skills is using a multiplier modifier and generalizing the difficulty the GM wants. Take the character's level of skill, add a few optional modifiers and rate the difficulty. Check the Number Multiplier Chart in the back of the book for the number to roll under for success.

DIFFICULTY	MULTIPLIER
Real Easy	x 1.25
Easy	x 1.00
Average	x 0.75
Tough	x 0.50
Real Tough	x 0.25
Near Impossible	x 0.12

EXPERIENCE

Experience points are an easy-to-use system of reward points for positive action in the game. With these points characters reach new plateaus of level where they are able to improve and gain skills. With each additional level, chances of survival are improved by an increase in the following areas:

A	HIT POINTS
B	SKILL LEVELS
C	PSIONIC ENERGY
D	STABILITY

WHO GETS EXPERIENCE?

Experience may be awarded for individual or group action. This experience is usually accumulated by the playing group as a whole and divided equally to characters who survive the game. Characters who have performed special deeds or risked their lives for others also should have an experience point bonus as decided by the GM.

REMEMBER

- 01 Experience is the GM's decision.
- 02 Do not give Experience for every small action that adds to the general welfare of the party.
- 03 Do not award Experience for killing, looting, burning, or unjust mayhem by the players. Players who have their brains in their trigger fingers should be limited by low or no Experience.
- 04 Negative Experience is a system of not allowing a character to progress in level until a GM set amount of new Experience is returned as penalty.
- 05 A character can never lose Experience already gained from past games.
- 06 There are no real levels or titles of Experience in FTL: 2448. Any true leaders always show themselves with their intelligence and leadership.
- 07 Check your character sheet and keep your Experience Point Accumulation (EXP) up to date. Next to it is the listing of what point boundary you must cross to gain more HPT, SKILL, STB, and optional WKP Power.

- 08 WKP or WKM improves by d10 +2 points per each level of experience.
- 09 STB gets a bonus roll of d4 +1 points per level.

ACCUMULATED EXPERIENCE POINTS	ADDITIONAL HIT POINTS GAINED	ADDITIONAL SKILL PTS. GAINED
000100 — 001000	d10	d4
001001 — 002000	d10	d4 +01
002001 — 004000	d10	d4 +02
004001 — 008000	d10	d4 +03
008001 — 016000	d10	d4 +04
016001 — 032000	d10	d4 +05
032001 — 064000	d10 +01	d4 +06
064001 — 100000	d10 +01	d4 +07
100001 — 140000	d10 +02	d4 +08
140001 — 180000	d10 +02	d4 +09
180001 — 220000	d10 +03	d4 +10
220001 — 260000	d10 +03	d4 +10
260001 — 300000	d10 +04	d4 +10
300001 — 340000	d10 +04	d4 +10
+ 40,000 per level	d10 +05	d4 +10

Ben, Bells & Quag

After minor adventures on Fomalhaut, Ben has gained a little experience. His EXP is now 1200 points.

He is a little tougher and a little more experienced in his skills use. Now at first level Ben gains the roll of a d10 to increase his hit points and d4+1 more skill points to increase his levels in old skills or start new skills. Ben's player rolls a 6 on a d10, bringing his character's hit points to 55. He then rolls a 2 on a d4 for additional skill points. Ben decides to add to an old skill, Electronics Repair and gives it one point. With his remaining 2 points he improves his Emergency Medicine by 1 point and his Starship Operations by 1 point. Ben's skills are now just a bit better.



EXAMPLES OF EXPERIENCE

Reconnaissance	0050 pts.
Outstanding Reconnaissance	0100 pts.
Good Judgment, Sound Reasoning	0200 pts.
Outstanding Reasoning, Insight	0600 pts.
Outstanding Planning	0550 pts.
Infiltration into a Hostile Camp	0500 pts.
Aiding the Needy	1000 pts.
Going Out of Their Way to Aid	1500 pts.
Risking Their Lives to Aid	2000 pts.
Outstanding Aid	3000 pts.
No Use of Violence	2000 pts.
Minimal Use of Weapons	0750 pts.
Effective Use of Weapons as Needed	0300 pts.
Avoiding Traps / Setting Traps	0400 pts.
Outsmarting a Superior Force	1000 pts.
Outfighting a Superior Force	0550 pts.
Standing Up to Monstrous Creatures	1000 pts.
Outwitting Monstrous Creatures	1500 pts.
Outwitting a Bureaucracy	0250 pts.
Playing in Character	0100 pts.
Good Group Organization	0500 pts.
Good Organization After Leadership Loss	0400 pts.
Dealing Peacefully with Others	0500 pts.
Removal of a Critical Threat	1000 pts.
Effective Use of Equipment	0500 pts.
Not Jeopardizing Civilians	1000 pts.
No Casualties	0400 pts.
Working with Aliens	0100 pts.

GM's NOTES

These are only examples of possible ways to gain Experience. Groups who are outside the law may gain Experience for the opposite reasons. You may also give your special NPC's Experience for dodging your players.

After 60,000 points, your character gains Experience about every 15 games he or she survives. The average individual Experience the designer feels is fair to the player ranges from 1500 to 2400+ points for an outstanding game.

However, this remains entirely the GM's decision.

THE MILITARY OPTION

Player characters have the option to decide on past or current military training. This training allows the player to choose skills listed with the M prefix without a self-taught penalty.

REMEMBER

- 01 Generate the character's previous military rank or the equivalency by rolling a d100.
- 02 Note the special bonuses for skills. If the character is retired or out of the military for over five years, there are no skill bonuses given.
- 03 Actual title of the character's rank may vary with the branch of service and country / world of origin.
- 04 Modify the character's age accordingly and don't forget the skill bonus for age. (See Also Pg. 013)

GENERALIZED RANK

<i>Enlisted</i>	<i>Age</i>	<i>Officer</i>	<i>Age</i>
01-75 Private	19	01-55 Lieutenant	24
76-85 Corporal	22	56-85 Captain	27
86-90 Sergeant	25	86-90 Major	32
91-95 First Sergeant	28	91-95 Lt. Colonel	38
96-98 Master Sergeant	38	96-98 Colonel	44
99 Sergeant Major	46	99 Maj. General	50
00 <i>Roll on Officer Table</i>		00 General	53

SERVICE CATEGORIES

Military service can be divided into two major categories for skill and training. These are: Combatants and Non-Combatants.

COMBATANTS

Combatants gain a +1 on any skill relating to direct combat skills or use of weapons. This does not include any technical skills or accuracy modification.

NON-COMBATANTS

Non-Combatants gain a +1 on any technical skills directly related to training or their specialty. This +1 does not carry on into weapons or direct combat skills.

MILITARY PHYSICAL TRAINING

Military physical training will give the character a +1 on Strength, Constitution, and Accuracy if the character has a rating under 15.

SERGEANTS

Any Drill Sergeants or Naval Chief Petty Officers gain an initial +2 skill points on all military skills taken and a +2 on Strength and Constitution. Add a +1 on Charisma and 15 years to their age. Generally they have an attitude problem that ranks their temperment in the low 40's.

ROTC OPTION

Any enlisted personnel have a 70% chance of starting on the Officer table if they have pre-military training oriented towards officer training. This may include Military School or ROTC type training.

LANGUAGE OPTION

A character is assumed to have learned one language in his or her formative years. This becomes a native language and the character will speak it with a level of 20 or 100%.

BILINGUAL CHARACTERS

Characters raised in a double language or bilingual environment automatically add the second language as a skill. For this ability both the character's parents must be from a foreign country or have learned and continuously use a language other than the norm.

REMEMBER

- 01 Start your character with his or her native language at 20.
- 02 Any additional languages may be added as if they are additional skills. Languages always start at a level of 1.
- 03 Characters from a bilingual environment start their second language at a skill level of 16 +d4.
- 04 A character who constantly studies or lives in a foreign language situation can gain d6 points of level in that language per year of 'Total Immersion'. This is the complete and absolute dedication to learning that language.
- 05 There is only an unmodified 5% chance of a player starting as bilingual.
- 06 Use a Universal Translator next time.

HOW WELL CAN I SPEAK IT?

The following is a general chart of a character's language level and his ability to be understood.

LEVEL	DESCRIPTION	CHANCE OF COMMUNICATION
01-03	Totally Unintelligible	10%
04-05	Mostly Unintelligible	25%
06-08	Somewhat Understandable	40%
09-11	Almost Understandable	50%
12-14	Understandable	75%
15-16	Fluent	85%
17-18	Fluent Translator	95%
19-20	Talks Like a Native	99%

LANGUAGES

01 Arabic	11 English	21 Russian
02 Chinese	12 Turkish	22 Spanish
03 French	13 Bulgarian	23 Swahili
04 Gaelic	14 Czech	24 Swedish
05 German	15 Norwegian	25 Welsh
06 Greek	16 Japanese	26 Danish
07 Hebrew	17 Korean	27 Bantu
08 Hindi	18 Latin	28 Rumanian
09 Hungarian	19 Polish	29 Albanian
10 Italian	20 Portuguese	30 Icelandic
31 Blox	34 Dabe	
32 Bor'Cha	35 Any Alien Languages	
33 Kymnarn		

LANGUAGE BONUS

Languages may have a bonus of a few skill levels to start. Index the information that pertains to your character's language education and add the bonus to your new language level. This bonus is used only once while generating a character.

TAUGHT BY

Parent from Foreign Country

Rarely use 'old language' +2
Use 'old language' heavily +4

By Relative of Family

-Occasionally +1
-Constantly +2

School

Primary School (Basic School K-6) +4
Secondary School (High School) +4
College (Average 4 Years) +6

Location

In Own Country +1
In Foreign Country +4

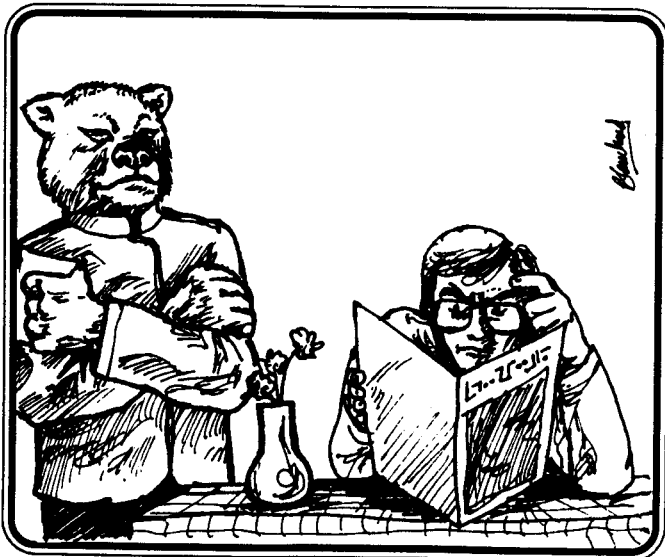
RELATED LANGUAGE BONUS

Many languages have the same root or common ancestral language. As an example Spanish, Latin and Portuguese are related. If you know one of a number of related languages your study gains a bonus. For every 5 levels of a language you have, related to the language you are studying, you gain a bonus +1 level. As an example: If you have a 20 in Latin your Spanish is +4 levels to start.

Ben, Bells & Quag

As a youngster, Ben knew a Bor'Cha named Freddie who used to teach him a few words in Bor'Cha. As an adult Ben began to learn Bor'Cha. His starting level is 1 to begin. Because of his little bit of previous training he gains a +1 bonus.

Ben can now understand a few words. He can understand the word beer, and order a dinner in a Bor'Cha restaurant without making too much of an idiot of himself.



UNIVERSAL TRANSLATORS

The simple solution to language barriers across the Worlds was the use of sophisticated translators that allowed different races to communicate with a minimum of high-tech hardware.

For this the Universal Translator was created and dispersed to the corners ISCO space. Mostly these Krelvin devices are found as a thin band, button or jewelry item.

MICRO TRANSLATOR IMPLANTS

The smallest of these translators are disks that are commonly clipped to the ear. In d6 hours the system attunes to the user. From that point on the individual is able to understand 98% of spoken languages he or she may encounter. Unfortunately, it takes two individuals using these devices for direct communication.

These practically indestructible devices are highly prized and in limited supply.

Ben, Bells & Quag

Standing in the door of the office, Bells steps out and is greeted by a group of three Zumwol.

"Kar Xei Zuk Chob!" says the first, who begins to tap on the deck.

"Xie?" says the second.

The Kymnar is, puzzled and makes friendly gestures and is greatly surprised by the visitors looks of aggravation.

"Xni Ke," she says, and then stops to remember the translator band in her pocket. She clips it on her ear as the third Zumwol opens a briefcase and pulls out a sheaf of papers. "Zema Chi, Chobi Pituii and is suing the owners of the Wapakoneta for lost cargo and other damages!"

Bells snarls and cycles the door shut, just missing a claw with a business card.

"Assault!" mutters Xei, Ch of Xei, Xei and Xei attorneys at law.

MEDICAL SKILLS

Separate from general skills are the special medical skills a character may have when he or she plays a doctor. A character who becomes a doctor uses the same skill generation and experience system.

REMEMBER

- 01 The only requisite for becoming a doctor is a minimum intelligence of 12.
- 02 Choose a primary medical specialty. Start this skill at a level of d4 +4.
- 03 Choose four other medical skills, start each of their levels at d4+1.
- 04 Choose 12 skills from the general skill table with the prefix H. Start these skills at a level of d4. A player character with military training may also use the M prefix skills. Doctors start rank at Captain.

ANATOMY

The study of the structure of animals and humans.

ANESTHESIOLOGY

The science of the administering of gas or drug, local or general anesthetics.

AUDIOLOGY

The science of hearing.

AUTOPSY

The science of medical examination after death to ascertain the cause of death.

BACTERIOLOGY

The science and study of bacteria.

BEHAVIOR MODIFICATION

The study of the total response of a living organism to internal and external happenings. The alteration of behavior.

BIONICS / REPLACEMENT SURGERY

The science of replacing limbs and internal organs with fabricated parts that serve the same or improved function.

BIOCHEMISTRY

Study of the chemistry of living tissues.

BIO-PLASTIC SURGERY

The alteration of living tissue to change its shape and general appearance.

BOTANY

The study of plants and their medical use.

BURN TECHNOLOGY

The use of high technology to treat and repair burn damage.

CHEMISTRY

Knowledge of general and specialized chemistry in the lab or field.

COMMUNITY MEDICINE

The knowledge of the medical needs of a general or a specific community often specialized by race or location.

DENTISTRY

The science of the prevention, diagnosis, and effective treatment of diseases of the mouth and teeth.

DERMATOLOGY

Science of the structure, function, and diseases of the skin.

DRUG THERAPY

The use of drugs to treat diseases and disorders over a period of time.

EPIDEMIOLOGY

The study of disease transmission and spread. Often uses historical records and computerized models.

FREEZING / CRYOSLEEP TECHNOLOGY

The science and use of cold hibernation to preserve life over an extended period of time.

GENETICS / GENETIC ENGINEERING

The science of heredity and variation, the engineering of traits in living things.

IMMUNOLOGY

The science of dealing with the reactions of living tissues to a foreign biological material.

INTERNAL MEDICINE

Medicine that deals with the diagnosis and medical therapy of diseases of internal organs by non-surgical methods.

MICRO-SURGERY

High-tech surgical methods for correcting problems at the microscopic level.

MEDICAL TECHNOLOGY USE

The knowledge and the use of the latest in available medical technology and hardware.

NEUROLOGY / NEURO SURGERY

The study of the anatomy, physiology, and pathology of the human nervous system. This also includes general repair and restructuring.

OBSTETRICS

The study and care of prenatal life, including birth and infant care.

ONCOLOGY

The study and care of neo-plastic growths, the formation of new tissues commonly known as cancers and tumors.

ORTHOPEDICS

The specialized branch of medicine mostly concerned with the correction of deformities and diseases of the muscle and skeletal system.

OPHTHALMOLOGY

Science of the anatomy, physiology, and diseases of the eye.

PATHOLOGY

The science of disease and its treatment.

PARASITOLOGY

The study of parasitic organisms.

PHARMACOLOGY

The science of the nature and the properties of drugs, particularly in their actions on living things.

PSYCHOLOGY

The science that studies the function of the mind.

PSYCHIATRY

Medical science that deals with the origins, diagnosis, and treatment of mental and emotional disorders.

RADIOLOGY

The branch of medicine that deals with the use of radioactive substances in the diagnosis and treatment of disease.

SCAN TECHNOLOGY

The branch of medicine that deals with the diagnosis of injury and disease by use of special systems including Ultrasound, NMR, X Ray, and CAT Scan.

SPACE MEDICINE

The study and treatment of diseases and disorders common to people working and living in space.

SURGERY

The branch of medicine dealing with internal trauma and diseases requiring any operative restructuring procedures.

TOXICOLOGY

The science of the nature and physiological effect of poisons, their detection, and treatment of their effects.

VIROLOGY

The study of viruses and virus-caused diseases.

ALIEN DISEASE & TREATMENT

These skills are also applicable to diagnosis and treatment of alien diseases as long as the Doctor has an Autodoc or medical computer handy. Without such high-tech aid the doctor is limited to one to four races to be proficient with.

RESUSCITATION

For every level of experience a doctor possesses he or she has a bonus 5% cumulative chance to save a victim from death shock. This resuscitation is the attempt to restart and stabilize the trauma victim's life functions after they have stopped.

COUNTERING DEATH SHOCK

Each attempt takes d4 minutes. During the attempt the victim's Constitution remains stable until the attempt succeeds or fails. Roll a d100, scoring under the doctor's "ability to resuscitate" level percentage, for success.

RESUSCITATION AS A SKILL

Resuscitation may also be taken as a separate skill. This procedure to immediately 'jump start' a character can be continued d6 +4 attempts before it is no longer effective.

LIMITED TIME

A second type of failure to resuscitate is where the attempts go over a maximum time. At this time the character becomes hopelessly brain damaged and useless. Remember that each resuscitation and stabilization attempt takes d4 minutes.

CONSTITUTION	TIME TO BRAIN DEATH
01 - 02	03 minutes
03 - 08	04 minutes
09 - 14	05 minutes
15 - 18	06 minutes
19 - 22	07 minutes
23 - 26	08 minutes
27 - 30	09 minutes
31 - 40	10 minutes
41+	12 minutes

TRAUMA CARE

Emergency healing has a base of 5% for every level of Trauma Care the doctor possesses. This ability allows the doctor to repair physical damage on a special basis, and save a character damaged to the point of death.

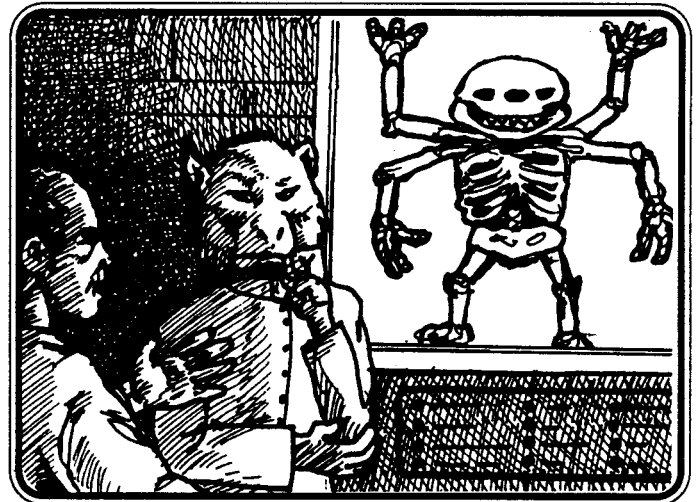
REMEMBER

- 01 This ability is limited to one use per day, per patient.
- 02 The attempt takes d100 +30 minutes of the doctor's time.
- 03 This form of treatment restores a limited number of hit points to the character or NPC character.

EMERGENCY HEALING

Index the conditions modifier on the situation. Apply that to the doctor's chance to accomplish emergency healing. If he or she succeeds, index the amount of Hit Points or CON restored.

Conditions	MODIFIER	HPT	CON
Hospital Trauma Center	+30	d10 +4	d6 +3
Well Equipped Hospital	+25	d10 +1	d6 +2
Poorly Equipped Hospital	+15	d6 +2	d6 +1
Field Hospital	+10	d6 +1	d4 +1
Battlefield Treatment	+05	d6	d4
Lack of Medical Supplies	-10	n/a	n/a
Adverse Conditions	-10	n/a	n/a
Worst Possible Conditions	-25	n/a	n/a



HEAL WHAT?

All physical damage done to a character reduces his or her HPT, or Hit Points. This is a generalized combination of toughness and structure. All damage that affects hit points is called WBD or Whole Body Damage. The terms for HPT and WBD refer to the same block of points.

REMEMBER

- 01 You will be dealing with two distinct types of damage and body points as you play the game and are traumatized by your GM.
- 02 One set of points are your CON or Constitution.
- 03 The second set are your Body Structure or Hit Points.

- 04 If either set of points reaches (-1) the character falls unconscious.
- 05 If either set of points reaches (-3) the character suffers Death Shock and dies unless resuscitated.
- 06 If a player character suffers a Death Shock for any reason and is unattended for 2 minutes, his or her CON score begins to drop d4 points per game minute until the character is irrevocably dead when CON reaches (-3) or below.

NATURAL & MODIFIED HEALING

Use this general guideline for time of healing.

PER 48 HOURS	HPT RECOVERY
Natural Healing	d4 +1
Well Equipped Hospital	d10 +1
Poorly Equipped Hospital	d6
Field Hospital	d6 +1
Adverse Conditions	d6
Lack of Food / Rest	d4
Worst Possible Conditions	d4 x.50

HEALING MODIFIERS

Modifiers on these situations may come from the difficulty tables in the previous section. Doctors are an important rarity on many worlds.

GM's NOTES

Doctors gain a +1 on their Charisma score when dealing with most individuals or groups.

GENERIC DRUGS

Available to Medical Professionals are a wide variety of drugs for medical and stun weapon/dart use.

Unfortunately, many of these drugs are controlled substances and generally not legal to possess without a license. A character caught with such may face a fine or prison for possession. The ICL does not support the misuse of drugs or use of dangerous narcotics.

TE: TIME TO EFFECT ES: EFFECT SPECIFICS

AMPHETAMINES

Any of a wide variety of drugs that stimulates the brain or nervous system. These often speed up metabolic activity and heart rate.

TE: d4 Minutes Legality: Semi
 ES: Becomes alert, awake, and gains a +1 for reaction time on initiative rolls. Causes a -2 on reaction time when the dosage wears off if the user does not rest.

DEPRESSANTS

Drugs including pain killers that slow reaction time, metabolic rate, or the nervous system. May be specific to an area or have a general effect.

A (Metabolic Depressant)

TE: d4 Minutes Legality: Semi
 ES: Causes drowsiness, sleep, slows statistics reaction time, lowers the AGL, DEX, ACC, DOD, and THR statistics by d4 points per administered dose.

B (Neural Depressant)

TE: d4 Minutes Legality: No
 ES: Can be used to paralyze specific body areas or the general nervous system and higher brain function.

PSYCHEDELICS

Mind altering drugs that produce a mild to very serious loss of contact with reality. May be a synthetic or naturally occurring chemical.

TE: d6 Minutes Legality: No
 ES: Ruins coherent thought, action and use of Wisdom.

ANTIBIOTICS, ANTIBACTERIALS / VIRALS

Any of a very wide number of drugs used to fight infection. (See Also Pg. 123 in Disease.) Adds +1 to fighting infection.

TE: d4 Hours Legality: Yes
 ES: Generally creates minor drowsiness and are a boost to an overtaxed immune system.

ADDICTIVE

Any of a group of drugs that cause euphoria and become addictive. Withdrawal from use creates fever, convulsions, shakes, and a psychotic craving for the drug. Highly dangerous.

TE: d6 Minutes Legality: No
 ES: Causes euphoria and later serious personality changes. May serve as a very strong pain killer in small doses.

PSI DEADENING

A very small group of drugs that deaden PSI ability in humans and animals.

TE: d4 Minutes Legality: n/a
 ES: Simply disrupts a PSI so he or she can not use their abilities for d10 +10 hours. Extensive use to deaden Wild PSI ability can lead to a minor addiction.

ANTI-SHOCK

Any of a number of drugs that stimulate or stabilize the heart, preventing a person from going into shock and dying. (See Also Resuscitation Pg. 027, Shock Pg. 136-137)

TE: (d4) x.50 Minutes Legality: Yes

HEALING

Any natural or synthetic compounds that promote the body's healing mechanism. Returns 1 Hit Point per day when used. (See Also Pg. 27)

TE: 24 Hours Legality: Yes

REMEMBER

- 01 Drugs are many and varied in form and specific function. If you need drug data, research the subject and consult the GM. We highly recommend the common and inexpensive paperback Desk Reference to Drugs or a PDR (Physicians Desk Reference).
- 02 Drugs may cause allergic effects. (See Also Pg. 101)

GM's NOTES

If the player is caught in circumstances beyond his control and deserves a second chance at living, give him or her a chance. If the player doesn't deserve revival but insists it can be done, even after elapsed time, cut all statistics and skill levels in half due to spoilage.

AUTODOC SYSTEMS

By 2448 Medical science has progressed in many ways to near-perfection in prevention, repair, replacement surgery. Gone are the days when medical insurance hung over the heads of the populations to regulate who lived and who died.

An Autodoc visit is a normal part of life, free to the public and often superior in speed and accuracy to its human counterparts. There are 6 basic classes of Autodoc.

AUTODOC

CLASS	CAPABILITIES
01	A
02	A B
03	A B C D
04	A B C D E F
05	A B C D E F G H
06	A B C D E F G H I J
06g	A B C D E F G H I J K

Autodoc Functions

A General First Aid

Includes the repair of skin in small areas, sealing cuts, treatment of minor burns, bites and toxins, dispensation of low level (Non Regulated) drugs. Also monitors general health.

B Medical Assist

Complex blood gas analysis, deep cut sealing, limited preventive antibiotics, anti-virals, dietary supplements, health recording micro-implants.

C Major Assist

Toxin analysis and antidotes, body chemistry analysis and repair, bone setting and fusing, blood replacement, stabilization and resuscitation.

D Life Prolongation

Full medical analysis and creation of implants to correct the systemic failing and debilitating effects of normal aging. Includes a wide range of anti-cancer boosters and immune system improvement drugs.

E Major Repair

Tissue repair of muscles and minor surgery. Removal of minor neo-plastic growths. Vision alteration and grafting of a lesser nature.

F Cosmetic Surgery

Ultrafine repair of features, color, skin texture. Also repairs any physical defects of a superficial nature and makes changes considered elective by the patient.

G Major Internal & Resuscitation

Major surgery and repair of internal organs, transplants, limb reattachment, major restructuring of complex body systems. Resuscitation of dead within 30 minutes of death.

H Speed Healing

Speed healing assist to regrow tissues and organs, speed knit bone and restore damaged nerves. Aging reversal.

I Complex Reconstruction

Regrowth of internal organs, nerve reattachment and regrowth, highly complex regrowth or transplant surgery.

J Limb Regeneration

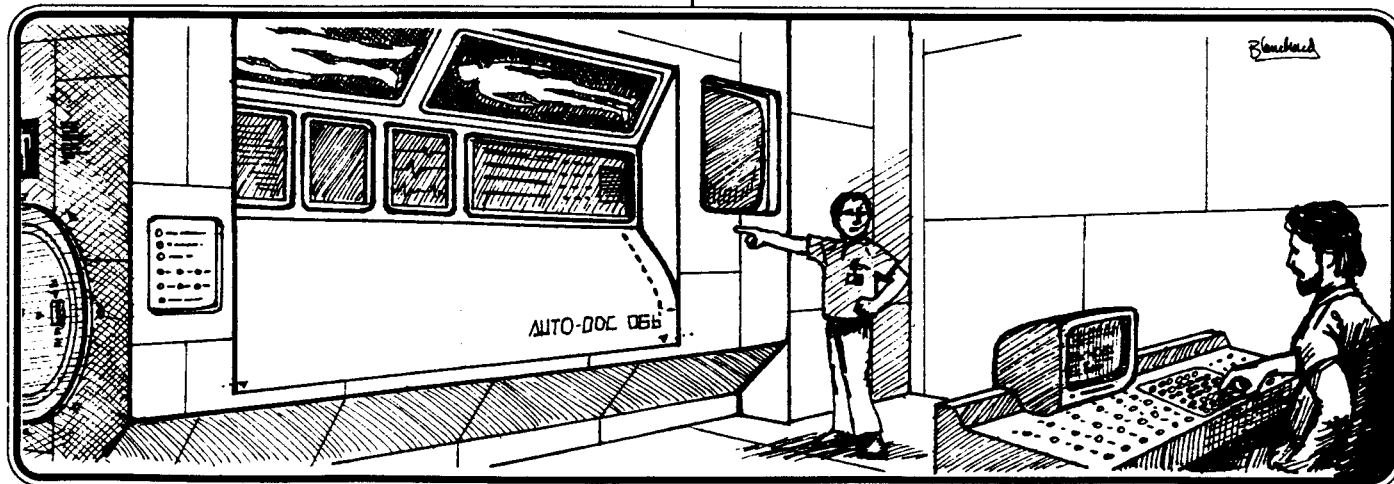
Complete organ system regeneration, regrowth or transplant, brain repair, removal of accumulated radiation exposure, creation of Nano-Tech devices specific for maintaining health in the individual.

K Gene Modification

This uncommon level of care is a complex gene engineering system that improves or replaces damaged genes before birth or creates retrovirus specifics to implant new gene strings to replace damaged ones.

LIMITATIONS

- 01 The Autodoc must have an analysis file or disk of the character being repaired or the treatments are limited to physical repair. Forced healing without the individuals gene scans will kill 40% of the time. An analysis record is a full body scan that has been updated within the last 6 months.
- 02 You must have tissue to regenerate.
- 03 The Autodoc must continue its full cycle while a trauma victim is inside. Problems beyond the computer or any interruption to the system automatically puts the Autodoc into Cryo-Preservation mode until it can finish the job or be repaired.



04 The Autodoc can not regenerate brain tissue and keep the characters memory intact. Brain damage causes the character to lose memories and skill levels.

LEVEL OF DAMAGE	REDUCE SKILLS WITH
Light Damage	d4
Medium Damage	d6
Heavy Damage	d6 +2
Catastrophic Damage	d6 +4

TREATMENT TIME

This is a generalized guideline for treatment time for minor and major trauma. m = Minutes, h = Hours, d = days

TREATMENT	ANALYSIS	TIME
Simple First Aid	05 m	05 +d6 m
First Aid	05 m	10 +d6 m
First Degree Burn	05 m	10 +d6 m
Second Degree Burn	05 m	15 +d6 m
Third Degree Burn	10 m	30 +d6 m
Minor Surgery	10 m	01 +d4 h
Major Surgery	15 m	06 +d6 h
Sprain	05 m	10 +d4 m
Bone Breakage	05 m	15 +d6 m
Shattered Bone	10 m	02 +d6 h
Minor Toxin	05 m	10 +d4 m
Major Toxin	10 m	30 +d6 m
Minor Infection	10 m	10 +d4 m
Major Infection	10 m	40 +d6 m
Minor Tissue Regeneration	15 m	04 +d4 m
Major Tissue Regeneration	30 m	10 +d6 d
Reattachment Surgery	30 m	06 +d6 h
Transplant Surgery	45 m	10 +d6 h
Replacement Surgery	45 m	10 +d6 h
Simple Organ Regrowth	60 m	50 +d6 h
Major Organ Regrowth	90 m	15 +d6 d
Limb Regeneration (1 Inch)	30 m	40 +d6 h
Brain Regeneration	90 m	30 +d6 d
Complex Nerve Regen.	90 m	50 +d6 h

SITUATIONS

Heavy Laser Wound	30 m	10 +d6 h
Bullet Wound	30 m	15 +d6 h
Broken Nose	05 m	10 +d6 m
Eye Puncture	30 m	02 +d4 d
1000 Rad Exposure	30 m	10 +d6 d
Heart Transplant	45 m	10 +d6 h

ANALYSIS

Full Body Scan	30 m	
Updating Scan	15 m	
Maintenance Scan	10 m	10 +d4 m
Supplements/Drug Therapy	10 m	05 +d4 m

These guidelines are variable by the GM. No two Autodoc operations will take the same time. Generally the more damage, the longer time the victim will be in the system.

EASY PLAY AUTODOC USE

A simple way to use the system is to regenerate d6 WBD or CON for every hour in the system.

AUTODOC RESUSCITATION

The Autodoc system has a limited chance of resuscitation after the character has died. The general guideline below lists hours dead before attempted resuscitation and modifiers for the time dead.

MODIFIER

Preservation Drugs	1 Hour Decay per 4 Hours
Hot Climate	Double Rate of Decay
Cool Climate	1 Hour Decay Per 2 Hours
Ice Pack	1 Hour Decay Per 4 Hours
Cold Freezing	1 Hour Decay Per 4 Months
Cryonic Freezing	Suspension of Decay

HOURS DEAD	CHANCE RESUSCITATION	BRAIN DAMAGE
Under 1	95%	05% None
01-02	85%	10% Light
02-03	75%	15% Light
03-04	65%	20% Medium
04-05	55%	25% Medium
05-06	45%	30% Medium
06-07	35%	35% Heavy
07-09	25%	40% Heavy
09-12	12%	45% Heavy
12-16	06%	50% Catastrophic
16-18	03%	75% Catastrophic
18+	01%	95% Catastrophic

Rolling over the percentage on a d100 moves up to the lesser category of damage. Example, Anton, dead for 4 hours is successfully resuscitated and has a 20% chance of Medium Brain Damage. A 39 is rolled and the actual damage is moved to the Light Level.

AUTODOC SUPPLIES

Any functional Autodoc must have a complete medical stock of 24 items and 7 program packs for use of each race treated.

01	Skin Matrix	13	Speed Healing
02	Muscle Matrix	14	Anti-Rejection
03	Soft Tissue Matrix	15	Chemical Pack
04	Fluids	16	Nutrient Pack
05	Blood Matrix	17	Life Prolongation Pack
06	Neural Regenerative	18	Transplant Pack
07	Tissue Regenerative	19	Gene Pack
08	Bone Matrix	20	Nano Pack
09	Anti-Coagulant	21	Retrovirus Pack
10	Anti-Toxin	22	Hormone Pack
11	Anti-Biotic	23	Anti-Cancer
12	Drug Pack	24	Immune Enhance Pack

PROGRAM CARDS PER RACE

- A Repair & Surgery
- B Tissue Regeneration
- C Neural Regeneration & Repair
- D Life Resuscitation
- E Life Prolongation
- F Nano/Gene Programming
- G *Individuals Personal Data Disk*

KRELVIN MEDICAL KITS

These extremely rare items were first introduced by the Krelvin as they became part of galactic society. Most are a simple silver case the size of a common briefcase. Self powered and moderately easy to use, they are fantastically valuable to the owner.

A SCANNER

A simple hand held device that scans an individual and feeds data back to the Doc Box. With micro antigravs, it is suspended over the patient for detailed work.

B ANESTHETIC & ANTISEPTIC FIELD

A pliable ring that can be expanded. The ring's center is a sterile field that covers the area above and below where it is placed.

C DRUG MATRIX INJECTOR

Plug it into the bag and it loads with the correct dose and drug for the individual.

D SPRAY TISSUE REGENERATOR

Regenerates light cellular damage, burns, and general cosmetic repairs.

E UNIVERSAL TOOL

This tool is the focal point of the Doctor's bag. Appearing as a pair of simple pens, this tool can be set to do the following when ordered by mental concentration.

Cut	Can Disintegrate or Burn
Clamp	Clamps Tissue
Cauterize	Seals Blood Vessels
Knit	Bone, Chitin, etc.
Knit Tissue	Attach Nerves, etc.
Separate Tissue	Separates Different Tissues rather than cut them.
Resucitator Pump	Stimulates Nerves or Heart Removes Fluid

F DOC BOX (Built into Case)

A sophisticated computer that assists the doctor by analysis, procedure, and preparation of equipment. After the first scan, the box simply creates a graphic of what the user should do, look for, and expect. Has a screen that magnifies and guides the doctor on and during procedures that require surgery.

This system may also request elements and stock components to produce chemicals, drug packs, and dispense needed drugs. Such packs are a rare request, and easily produced by a ship's chemical fabricator.

G LIMB REGENERATION PACK

A chemical pack that forces regrowth of a lost limb. The pack stays on the limb for d10 weeks until regrowth is complete and then is discarded. This pack is created by the Doc Box to be specific for a single individual's genetic structure.

H RESPIRATION STABILIZER

When this small device is placed against the patient's skin, it links into the respiratory system to provide necessary breathing gases.

LOW TECH MEDICAL KITS

The contents of a doctor's bag is determined by commercially made prepackaged kit or personal preference. The following is the listing of a commercially packaged doctors bag. This kit has a large briefcase design and weighs 32 pounds. This is a Terrestrial (Human Pak) example.

DRUGS / FILLED SYRINGE

Atropine x2
Calcium Chloride
Dextrose
Epinephrine 1.50 " Needle
Epinephrine 3.50 " Needle
Lidocaine x3
Sodium Bicarbonate x3
Valium x3

DRUGS IN AMPULES

Aminophylline
Amyl Nitrate x3
Aromatic Ammonia x2
Benadryl
Calcium Gluconate
Compazine
Epinephrine x3
Inderal x3
Ipecac Syrup
Isuprel
Lasix
Neo-Synephrine x3
Nubain x3
Dilantin

DRUGS IN AMPULES

Lanoxin
Narcan
Nitroglycerin
Solu-Cortef

IN PACKAGES

Aspirin x100	Tylonol 3 Codeine x100
Betadine Scrub 6 oz Bottle	Toothache Jell
Triple Antibiotic Ointment 1.5 gr. Foil Pack x2	
Dacriose Eye Wash 6 oz. Plastic Bottle	
Cortisporin Ophthalmic 2 oz. Tube x2	
Tolnaftate Antifungal Ointment 1% in 15 gr. Tube	

SYRINGES

03 ml Without Needle x2
12 ml Without Needle x2
Needle 14 ga. x 1.5"
Needle 18 ga. x 1.5"
Needle 20 ga. x 1.5"
Needle 25 ga. x 1.25"

OXYGEN EQUIPMENT

Oxygen Mask w/Strap & Rebreathing Bag
Oxygen Cylinder
Roll of Tubing

SURGICAL INSTRUMENTS

Alcohol Sponges x4
Gauze Sponges 4x4 x4
Hemostat x3
Needle Holder
Scalpel x3
Scissors
Sutures
Ethicon 4-0 Prolene
Ethicon 2-0 Vicryl
Tape Roll
Thumb Forceps
Tourniquet
Gauze Roll 2" x 10 yds. x3
Varied Bandages

IV EQUIPMENT

500 ml 5% Dextrose Inj.
Intravenous Cannula
IV Administration Set

AIRWAY EQUIPMENT

Endotracheal Tubes
3mm, 5mm, 7mm
Laryngoscope Lg. w/Light
Laryngoscope, Sm.
Oropharyngeal Airway x3
Stylet

RESUSCITATION

Bag w/Intake Valve
w/Non Rebreathing Valve
Adult/Alien Mask
Child Mask
Oxygen Reservoir Pack

MONITORING EQPT.

Sphygmomanometer
Stethoscope
Heart/Resp Stabilizer

MISC

Surgical Gloves x4 Pair
Mask x2

HISTORY

Date	Event
1945	Birth of the Atomic Age.
1959	First orbital satellite launched.
1961	First manned human space flight.
1969	First human sets foot on Earth's moon.
1981	First reusable space vehicles launched.
1983	First permanent space station completed.
1991	The Soviet Union collapses as its many satellite countries revolt. Eastern Block countries begin fragmenting as old ethnic and social problems resurface.
1994	Europe, attempting to convert to a working 'common market' economy pushes the continent into a depression. The United States, already strapped by financial and social unrest, attempts to avert economic collapse by massive aid programs for Europe.
1995	Minor wars in Asia and the Middle East escalate. The high social unrest in the United States creates warzones in what once were its major metropolitan areas.
1997	Beginning of the "Lawless Years". The US Government, strained by political indecision and corruption declares Martial Law as protesters storm and destroy government offices. US closes its borders to Mexican refugees as the second Mexican Civil War rages.
2003	The US Military begins to assist remaining corporations still operating to begin reconstruction and reclamation of Detroit and Los Angeles.
2007	Plagues sweep Asia, India, Africa and China.
2009	United, the most powerful Multinational Corporations form the International Corporate Organization (ICO). The "Lawless Years" end.

HISTORICAL PERSPECTIVE

"The year 2010 was the last year of what historians call the 'Age of Waste'. After the failure of careless expansion, there came a sense of unity to the survivors. They began to work together to make the world a better place with the hope the mistakes of the last decades of the twentieth century would not repeat themselves. Mostly, they hoped for a better world after seeing the wars and devastation of the 20th century."



Amber Davison
ICO Historian

2010	Shuttles begin to launch again for satellite replacement and removal of nuclear weapons in orbit.
2013	Permanent space platforms established for shuttles. ICO begins specialty manufacturing in space.
2018	A multi-national corporate expedition is sent to Mars. The planet is a mineral storehouse.
2019	Construction of four solar satellites begins. First permanent settlement established on the moon.
2021	Political unrest in Canada and Brazil as Mexican

rebels begin terrorist activities against ICO offices.

2025	General Francisco Roberto Omoxomo takes control of the Brazilian government. the first solar satellite begins to beam power to earth.
2027	Civil war splits Canada. Quebec gains a long-sought independence. The Northwest Territories join ICO as the remaining provinces form New Canada.
2029	Mexican rebels attempt to take over the Mexican government and are crushed. ICO and the Japanese Corporate State (JCS) begin construction of sea habitats, the first underwater cities. Britain becomes a province of New Canada.
2030	Mexican troops clash with Brazilian invasion forces in Panama. ICO aids Mexico. Cuba and United Africa join ICO. Puerto Rico becomes a Brazilian protectorate.
2036	ICO second expedition to Mars becomes a permanent colony at the North Polar ice cap. Brazil begins a huge accelerated space program.
2039	Makzie/Phillips fusion torch tests successful. Brazilian space platform assembled in orbit.
2041	First fast in-system ships with fusion drives completed. The solar system is opened to exploration. The first of three space habitats is begun.
2043	Brazil uses spacecraft for asteroid mining. ICO establishes second colony on Mars and sends exploration teams to the outer planets.
2046	Dr. John Lashaw finishes Einstein's Unified Field Theory and begins work on Phase Mathematics.
2047	Construction begins of first L5 space city.
2048	Janice Herbert publishes her thesis on "Applications of the Lashaw Mathematical Theories". Construction on second L5 city by the Asian People's Corporate State. first mass driver (space catapult) built on the lunar surface. Permanent underground cities are planned for workers on the moon.
2049	Herbert and Lashaw, working together, propose a design for a phase-drive, a Faster-Than-Light (FTL) starship propulsion system. Pacific sea cities unite to form the Federation of Aquatic Habitats (FAH). Brazil changes name to become the Brazilian Corporate State (BCS).
2050	Herbert and Lashaw vanish while on a Caribbean cruise. Mexico is again threatened as Omoxomo's impassioned speeches cause a patriotic fervor throughout the BCS and their territories. He directs the construction of forty freighters in earth orbit. Rumors point to a Mars colonization project.
2052	The world is shocked when the first Brazilian starship "Rio" is phased to Alpha Centauri. ICO raid on the BCS city of Campos fails to rescue Herbert and Lashaw. Omoxomo declares war on the ICO and Mexico, but takes no action. Continuing sabre rattling over the missing astrophysicists continues as Omoxomo claims them missing.
2053	Starship "Rio" returns from Centauri. In four weeks it is launched for a new destination and lost. ICO phase explorer "Messenger" launched to the star "Groombridge". FAH and BCS clash over Tierra Del Fuego's fight for independence from BCS.
2054	FAH headquarters on Guam is destroyed by a nuclear weapon. FAH and Australia declare war on BCS, who deny all responsibility. The world again hovers on the

brink of war. Over a two month period, over 40,000 Brazilians vanish. From orbit, Omoxomo declares Earth a hell, and phases his now completed fleet to find a better home for his people. ICO, FAH, Mexico and Australia prepare for the assault on the BCS.

2055 With Omoxomo gone, a quick and bloody revolution topples the remaining BCS regime. The new BCS calls for a truce, which is welcomed by all.

2056 BCS joins ICO.

2060 A colony on Ross 128 is established.

2063 Three new colonies opened to humanity.

2070 Beginning of the "Big Ship" era. The modular Kansas Class 'A' designs under construction.

2076 First corporations on other worlds are started by ICO splinter groups. The International Scientific Co-Op (ISCO) takes control of starship construction and exploration.

2084 ISCO 0024b "Santa Barbara" is lost in a phase accident. "Homesteader" Class colonizers and freighters in general use throughout Sol and other near star systems.

2095 Research task ship HMS Aardvark lost in Quantum jump accident. Over 1700 crew vanish with the ship. All Quantum jump drive tests and the use thereof is banned.

2100 Frenner Colony 3 established.

HISTORIC PERSPECTIVE

"The phase drive system slowly opened space to development and human colonization.

Unfortunately as the drive times improved, so did the incidence of drive failure and what was to be called "Phase Sickness". The simple method to end the problem was to cryogenically freeze the crew while traveling in phase space. Given time, each drive improvement was refined and the problems for the crews were slowly eliminated, including the need of freezing."



Orlando Boas
Brazilian Historian

2103 A Brazilian freighter returns to earth from two prospering colonies. Twenty six of the Brazilian freighters are accounted for. The location of Omoxomo and the remaining 14 freighters of his fleet are unknown and never found.

2104 Work begins at Fomalhaut colony "America" to build an orbital star port and starship construction facility.

2116 Construction of "Fomalhaut" star port continues as it opens for use. It's rich system with two inhabitable worlds soon makes it the commerce and industrial center for settled space. Alvarez Staryards are booming.

2118 Mars declares independence and is granted self-rule after a year of ICO debate. Titan and Io colonies declare independence, but give it up as a bad idea. Terraforming on Venus fails.

2120 "Henderson" and "Archaeopteryx", two deep space

survey ships leave on a four year tour and are assumed lost five years later.



2122 Wreckage of an alien shuttle found off Luytens 789-6. Extensive research shows a slightly inferior technology in electronics and propulsion. Pilot size estimated at 600+ pounds.

2125 Damaged alien freighter goes into orbit at Ross colony. Humans and the alien "Bor'cha" achieve a peaceful first contact. The bear-like aliens prove to be open and friendly. Bor'cha history and politics bear a close resemblance to those of their human counterparts. Aside from shape and family structure, the Bor'cha seem to be psychologically identical to humanity. Bor'cha discover tobacco, fast food, and beer.

2128 Humans and the Bor'cha sign expansion treaties and begin working together. Starship "Henderson" returns home without sister ship "Archaeopteryx". The story unfolds of a disastrous meeting with another alien race.

2130 Humans and Bor'cha form close economic ties. Mixed settlements and crews become common. Bor'cha soon have new communities on Earth and Mars. Humans begin to settle on "Faxn'chr", the homeworld of the Bor'cha.

2132 Three intelligent lizard-like races are discovered on "Hansen's World", the Arkol, Skay and Tugañ. they soon became common across human space. In time, they have colonies established in the Sahara desert as well as the Australian Heartland.

HISTORICAL PERSPECTIVE

"The first human-alien meeting was a total success. The Bor'cha's heavy construction techniques combined with the Human's technological edge to give both races an economic boost. The Bor'cha were like Humanity in their hopes, fears, humor, and business practices. It was a remarkable joining of cultures that would repeat itself many times in the next 300 years.

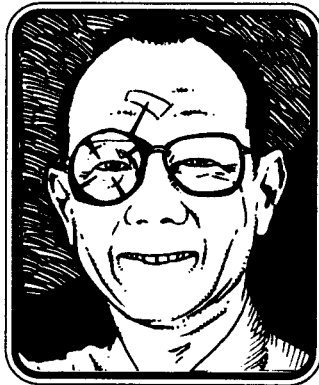


Bako Bor'Hoth
Socio-Technologist

- 2145** Celestar Corporate Scout finds the race that destroyed the Archaeopteryx. The race calls itself: "Kymnar".
- 2149** Celestar scouts the Kymnar homeworld as well as three colonies. A long range plan of conquest is formulated.
- 2154** A race called the "Blox" are discovered on "Ott". The Blox prove to have a talent for paperwork and organization, finding a niche in government and merchandising. Within a decade, the Blox have virtually integrated themselves within all known homeworlds and colonies.
- 2160** Despite being faced with a superior enemy, the Kymnar chose retaliation over surrender, giving Celestar the excuse for a full-scale attack.
- 2162** Elimination of Kymnaran spacecraft paralyzes their colonies and gives Celestar control over Kymnar space. Kymnar are blackmailed into harsh trade concessions to keep their colonies alive. Celestar announces the end of the "Kymnar Menace" and is given protectorate rights over the Kymnaran worlds by the ICO, and nothing is heard from Kymnaran space for nearly 80 years. ICO becomes the Inter-Stellar Corporate Organization.
- 2175** Giant task ship "John Lashaw" built at Fomalhaut. This ship is the largest starship to date, virtually a mile long deep-space city and industrial center.
- 2180** Kymnar revolt on C'char is brutally crushed by Celestar. Debate on the reality of PSI ability continues.
- 2190** Colonial corporations open four new planets for settlement. For 50,000 creds, anyone can settle on a new world. The rush to the star colonies is beginning as the poor, uneducated, and social dregs are forgotten. The fight for meal cards and survival wages becomes the monthly rite of the elderly and unemployed. Old Earth cities continue to crumble as ISCO creates an Earth Authority.
- 2192** Busy with politics and their expansion in settled space, ISCO fails to check the validity of the Celestar cultural reports on the Kymnar.
- 2196** PSI talents documented. Drugs found that enhance talent.
- 2200** Task ship "Omoxomo" launched from the Brazilian colony of Bryox. It is the second-largest starship to date. ISCO becomes the Inter-Stellar Scientific Co-Op.
- 2210** The destruction of three ISCO cultural teams reinforces Celestar's ban on communication with the Kymnar.
- 2230** The Omoxomo task ship disaster kills 38,210.

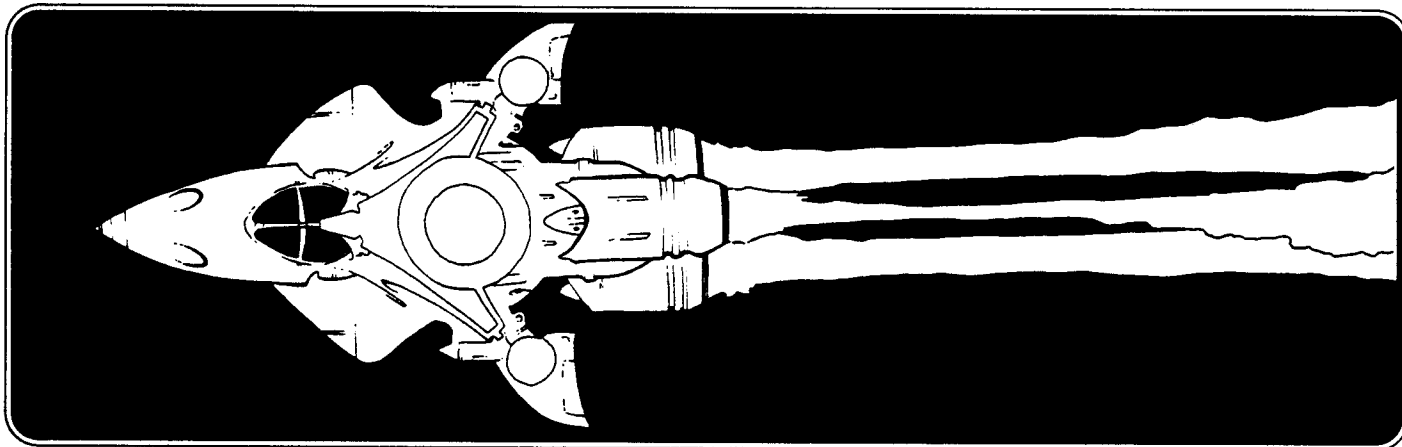
HISTORICAL PERSPECTIVE

This era spread humans and aliens over thirty habitable and semi-habitable worlds. High technology gave colonists many worlds that had little survival quality. Once new populations rooted, it was near impossible to move them, even when the colony-supporting corporations ended their involvement on the worlds, thus, the burden of supporting these fragile oasis' of life fell on ISCO's overburdened operations.



Darren Chang
ISCO Offices

- 2238** Second Kymnar revolt stopped in a four day war.
- 2239** Task ship John Lashaw disaster kills 31,230. The remaining three task ships are dismantled.
- 2248** Ben Faumnol takes command of the Kansas class ship ISCO 0013 "Ventura". Within 4 years Ventura becomes the first Independent Star Freighter.
- 2251** Omoxomo and John Lashaw disasters are exposed as sabotage backed by Celestar. Celestar tyranny against the Kymnar exposed as the Kymnar manage to seize a communications installation on C'char and send evidence of the crimes of Celestar.
- 2252** ISCO disbands Celestar and takes control of Inter-stellar corporate expansion. Treaty of Honor signed with Kymnar. Kymnar worlds freed.
- 2257** Aliens settling across Earth and bringing many new problems and crime, and legal hassles for the police of Earth Authority.
- 2260** Inter-Stellar Protection Treaty signed to ensure protection of all races, to provide for a common defense, and to ensure the welfare of intelligent life in any form.
- 2263** Earth Authority launches a century long program for the renovation of major cities across Earth, including the creation of 5 new starports. The old buildings and monuments are saved wherever possible as the ravages of time and pollution are erased.
- 2275** Opening of Mars Orbital Air and Starflight Museum. Second terraforming attempt on Venus fails. Universal Registration of Earth's population met with refusal and violence. Legal systems bog down as Bloxians follow terrestrial law to the letter. Major law reforms made.
- 2285** Plague on Seredin kills 80% of the Human, Bor'cha and Blox population. The beginning of a medical renaissance across settled space.
- 2287** John Rogan, considered the greatest economic genius of the time, predicts economic disaster unless a new set of guidelines and economic systems are developed. He is ignored by most of the prospering Corporate worlds. The Kymnar begin outward travel and ventures into settled space.
- 2290** "Frendle" are discovered. Their non-expansion doctrines confuse the ISCO contact teams. Even more confusing, with their homeworld a mere 1.1 light years from the Frendle, are the "Dabe". The Dabe have been trying to start an interstellar conflict with the Frendle for nearly 400 years. After meeting with the Dabe, ISCO decides that the entire race may suffer from some sort of minor mental instability. While mostly harmless, the Dabes soon spread across most of settled space. The Frendle, on the other hand are much more cautious, and only a few Frendle will ever actually venture into space.
- 2293** Niblock Industrial funds the building of 21 starships of experimental design and utility.
- 2300** For 25,000 creds, anyone can settle pretty much where they please. Colonization is at a peak, with over a million individuals departing Earth annually. Phase time is refined.
- 2320** Economic depression curtails expansion as the colonial agencies collapse. The large starship yards are mothballed as independent shipping prospers. A 30-year reorganization plan is begun. This reorganization bogs down in red tape and corporate bureaucracy within a year.



2322 Niblock Industrial goes out of business after the experimental starship "Altamera" is stolen.

2326 On Earth, crime, illegal aliens, and synthetic drugs, and gangs have created problems not seen since the Twentieth Century. Special Police (SP) units are formed as well as Special Assignment Police Service or (SAPS).

2330 First "Greixian" deep space scout comes to Fomalhaut and spends a month learning of settled space. He departs, promising a return visit, but the Grex never return.

2335 Kansas 'C' Class ship launched. These multi-purpose freighters become an economic necessity for many worlds. The new "Ontario" Class freighter becomes an economic alternative to the larger, more expensive 'C'. The "Nudge" canister freighters take economy one step further with their modular designs.

2337 PSI drugs and their illegal use become a social time bomb as a sick Psionic goes on a rampage in Atlanta leaving nearly 200 dead. SAPS units now empowered to hunt down rogue PSI's.

2340 Recovery progresses carefully with the colonies being reopened. Human settlement on Zoet fails to report an alien colony already on the world. Humans and the "Whurr" prosper together for more than a century before ISCO notices. Colonists change the name of their new world to Fenderwall for no apparent reason.

2350 Using human and alien technology, the first Androids are created for general labor. Twice as strong and fast as a human, they have a lifespan of 400 years. Tens of thousands are created.

2370 Greixians discovered after a 40-year silence. The race was exterminated down to a few thousand by a mutant virus believed to be the common terrestrial flu. ISCO begins to aid the Greixian survivors.

2372 A race called the "Fritzians" are found to be ancient star travelers. They have one colony and a superior technology, but refuse to have anything to do with other known races. Anti-Grav becomes a reality.

2373 A conference on interstellar law and commerce results in the formation of a police agency. The Interstellar Court of Law (ICL) will oversee difficulties and crime that spans more than one legal system.

2377 Androids begin protest and revolt to claim equality and civil rights. In the massacre that follows, Androids are banned and SAPS units empowered to eliminate any who are hiding. Androids flee to the colonies as the production of

Synthetic Humanoids is declared illegal.

2390 More aliens are joining ISCO.

2396 In a landmark decision, remaining Androids sue and are granted civil rights. Many come out of hiding.

2396 Evidence of an earlier star spanning empire found that dates them 200,000 years earlier. Last of the Morrow Project dug up from their long sleep.

2400 Interest in exploration is waning, economic security is overshadowing new progress in many areas.

2425 Independent starships have all but been eliminated by corporate dealings. Construction of ICL "Comanche" Class Warships begun.

2434 A race called the "Trell" discovered on a dying world. Despite insurmountable odds, they continue to survive. Much like the Blox, they too find a niche, but in technical fields, and soon spread across settled space.

2435 Numerous cargo ships destroyed on the colonial frontier. ICL begins investigations.

2440 Barlow discovered. Because of the odd nature of the race, the ICL and ISCO keep the location of their homeworld classified.

2442 Numerous attacks on the colonial frontier now point to an alien race of unknown origin.

2445 ISCO and its alien allies discover they have branched into an alien territory called the Hagoni Sphere of Prosperity. These aliens and their allies consider ISCO space and its property part of their empire. While talking peace they continue to raid colonies and steal technology.

2446 Starpirates become active on the frontier

2448 Human named Philip Clarke inherits a junkyard and the lost starship ISCO 0024 "Santa Barbara". He becomes a new popular hero and legend as a Captain of the Independent Starship. A new era has begun.

GM'S NOTES

This marks the return of the independent starship and the beginning of a new era of human-alien expansion in space. It is a time of fortunes and adventure, corporate intrigue and bureaucracy, and it's only just beginning...

This history is only limited by the imagination of the GameMaster. You may use the history provided, starting a game any year before 2448 in the early days of space exploration, or any year after 2448, exploring a future you create. The possibilities are endless...



ALIENS

The changing of your character into any of the races of FTL:2448 is a simple process:

REMEMBER:

- 01 Read the Aliens section several times and choose a race you like. Remember that each race has strengths as well as weaknesses.
- 02 Return to this section and then modify your character's statistics according to the race you have selected.
- 03 When finished, re-figure your HPT (Hit Points) using the new figures for your statistics.
- 04 DO NOT re-figure DOD (Dodge) or THR (Throw).
- 05 Make note of changes in tissue or natural body armor.
- 06 No statistic can be less than 0. Round all negatives up to 0.

STATISTICS MODIFICATION

	STR	CON	DEX	AGL	INT	WIZ	CRZ	SKIN
ARKOL	-	-	+02	+02	-	-	-	01
BARLOW	+04	+02	-	-	-	-	+01	01
BERIAN	-	-	+01	-	-	-01	-	01
BLOX	-03	+02	+04	+01	-	-	-	01
BOR'CHA	+16	+04	-02	-02	-	-	+01	02
DABE	+12	+06	-03	-01	-	-02	-	02
EREZEJEE	+70	+10	+04	-05	+01	-04	-	50
FALCS	-01	-	+02	+04	-	-04	-	01
FRENDLE	-	+02	+04	+08	-	-02	-	03
FRITZIAN	-04	+02	+02	+01	+02	+04	-	01
GREX	-03	+04	+03	+03	-01	-01	-	01
KENDAK	-04	+04	+01	+02	-	-04	-	02
KRELVIN	-06	+02	+04	+08	+05	-	+01	02

STATISTICS MODIFICATION

STR CON DEX AGL INT WIZ CRZ SKIN

HUMAN

GROUNDNER	-	+01	-	-	-	-01	-	01
SPACER	-	-	-	-	-	-	-	01
HEAVY	+06	+01	-	-	-01	-01	-01	01
LIGHT	-04	-	+01	+01	-	-	-	01
ROCKER	+02	+02	-	-	-	-	+01	01
AUGMENT	+40	-	-	+06	-	-	-02	10
PSI	-02	-01	-	-01	-	-01	-01	01

ALTERED TERRESTRIAL RACES

CHIMP	+04	+01	-01	+03	-01	-03	-	01
GORILLA	+08	+01	-01	+02	-	-01	-01	01
ORANG	+02	-	-02	+01	-	-	+02	01
DOLPHIN	+06	+02	-02	+03	-	-03	+01	02
ORCA	+40	+02	-04	+02	-03	-02	-	03

KYMNAR	+06	+02	-	+01	-	-	-	01
MARKANTS	-04	+04	+02	+01	+03	+01	+02	06
PAEBAK	+01	+10	-	-	+01	-	-	01
SANDROL	+10	+08	-05	-04	-	-06	-03	04
SKAY	+04	+02	-	-	-	-	-	02
TRELL	-07	+09	+08	+01	-04	-	-	01
TUGAN	+08	+04	-03	-02	-01	-06	-02	02
URANZI	+20	-	+05	-06	-	-	-	01
VESH	+06	+15	+01	-01	-02	-09	-04	04
WHURR	-10	-	+10	+06	-	-	+01	06
ZATH	-	+02	+02	+04	-	-02	-	01
ZM	-10	+12	+08	-06	+06	-05	+04	10
ZUMWOL	-05	-	+06	-04	-04	-	-05	03

ENEMYS

HAGU	-06	-	+04	+02	-	-	+01	01
ZANKEE	+04	+04	-03	-02	-05	-06	-07	03

ALIEN DATA KEY

It became evident early in mankind's exploration of the stars, that natural forces created life wherever there was half a reason for its existence, and in a few places that defied logic. In FTL:2448, we present intelligent races and the general information on history, skills and personality in order to give you an insight on each race.

HOME WORLD

The planet of origin of the race.

COLONIES

This is the number of colonies of this race or a general description of their colonial preferences.

SIZ: SIZE

This is the vertical height of the race in feet. Some of the races without vertical posture are measured in their horizontal length.

GRA: GRAVITY

This is the gravity of the race's homeworld.

LSP: LIFESPAN

Lifespan is the maximum age achievable in human years. The first number is the natural life span. The second number is the possible life span with high-tech medicinal science and life prolongation techniques.

SEX

This is the number of different sexes the race has.

GES: GESTATION

General time between conception and birth for that race (In Earth days).

BIR: BIRTH NUMBER

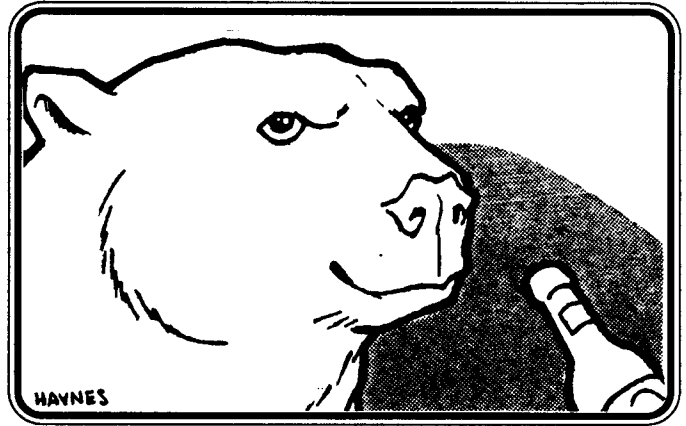
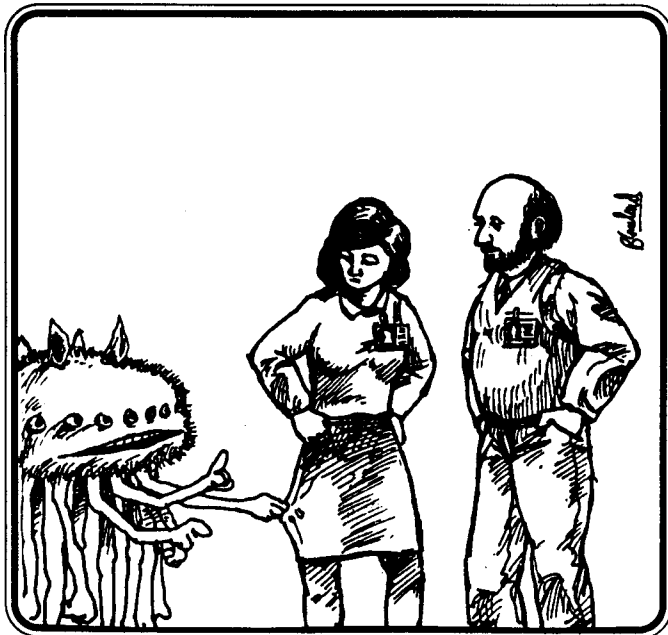
The typical number of offspring.

ENV: ENVIRONMENT

The average temperature in degrees fahrenheit that a member of that race finds tolerable.

SLP: SLEEP

The sleep cycle in hours (w) awake, and (s) asleep.



SENSES

SML: SMELL

The race's ability to smell. Bonuses add to WIZ when identifying smells or the early detection of an odor.

VIS: VISION

The vision of the race, uncorrected. This can modify ACC, THR, DEX, or DOD.

TAS: TASTE

The ability to taste. This modifies WIZ for identification or quality.

TOU: TOUCH

The sense of touch that can add bonuses to the use of DEX.

HEA: HEARING

The ability to hear faint sounds or ranges of sound different than the human norm. This modifies WIZ rolls for identification of the sound.

VOI: VOICE

The general sound of the voice.

BASIC SENSE QUALITY

This table is used for indexing sense modifiers on skill use. QHR is used for Historic Records research modifiers.

QUALITY	WIZ	ACC	DEX	THR	DOD	QHR
A Very Poor	-03	-04	-03	-04	-03	-50%
B Poor	-02	-03	-02	-03	-02	-25%
C Fair	-01	-02	-01	-02	-01	-10%
D Average	+0	+0	+0	+0	+0	-05%
E Good	+01	+0	+01	+0	+01	+0%
F Very Good	+02	+01	+02	+01	+02	+05%
G Acute	+02	+02	+03	+02	+02	+10%
H Very Acute	+03	+02	+04	+03	+03	+25%

TMP: TEMPERAMENT

Temperament is a scale of determining the index of aggravation a creature can take before he, she, or it becomes upset.. (See Also Pg.165)

MOT: MOTIVATION

Motivation works on the same general scale as temperament with Human motivations set at 50. At a MOT of 00, the individual is totally motivated by non-selfishness. At 01 the individual is totally motivated by self-greed and avarice.

PERSONALITY AND VIEWS

The general views and answers of the race to daily facets of life and society.

GENERAL HISTORICAL & SOCIAL

General data on the society, progress and records.

CON: CONTACT

The Earth year the race was first contacted.

JOI: JOINED

The Earth year the race joined ISCO.

HRS: HISTORICAL RECORDS START

The Earth year that this race first began to keep general historical records.

QHR: QUALITY HISTORIC RECORDS

The quality of their records.

ATE: ATOMIC ENERGY

The Earth year that Atomic Energy was discovered.

SPC: SPACE FLIGHT

The year of the first spaceflight.

STF: STARFLIGHT

The year of the first successful starflight.

REL: RELIGION

General belief structure of the race. (See below)

RELIGIOUS BELIEF

Many races have a belief system of higher authorities, spirits, or gods. This table lists the general views and intensity of belief.

- | | |
|---|--------------------------------------|
| A | Single Supreme Deity |
| B | Several Deities |
| C | One High Deity and Many Lesser |
| D | A Few High Deities |
| E | Several High Deities and Many Lesser |
| F | Deities, Lesser Deities, and Spirits |
| G | Agnostic (haven't decided) |
| H | Atheistic (Believe there isn't any) |
| | |
| 1 | Believe very Strongly |
| 2 | Believe Strongly |
| 3 | Believe |
| 4 | Believe Somewhat |
| 5 | Believe the General Principles |
| 6 | Believe, but don't Practice. |

TRANSPLANTED RELIGION

Many races have adapted Human religion or replaced primitive beliefs entirely. Many Bloxians took to Judaism, as a sect of Kymnar became Christian, believing the messiah had come to their world over three thousand years before. The Sandrol looked to the Bhuddist religion, a close copy of their own. The Krishna rejected the Dabes entirely...

LANGUAGES

The most important languages of the race as indexed by the percentage of the alien population who speaks it. In cases where a language is 100% and a second language is 10%, the second language is a chance of having a second racial tongue.

Additional languages are added as skills. Remember that many of the alien races need special devices to converse and be understood. See Also (Pg. 024-025).



SKILLS

These are general skills preferred by the race. Character's skills may lean in these directions or not as the player decides. Examples may include Bloxians having a business oriented career as a Kymnar would see some military service as a 'Honorable Family Tradition'.

GOOD/BAD TRAITS

These are the traits that make the alien likable or not. While these traits are general stereotypes, many aliens do not necessarily conform to them. This may also include culture and tradition that to outsiders can be strange or totally incomprehensible.

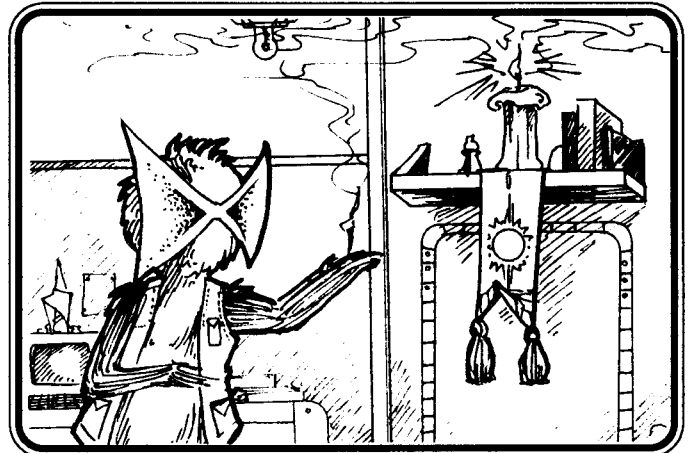
NAME

Name examples are general guidelines for the naming of the character. These may be traditional alien names or human name modifications that are popular. Regardless of name, most individuals have a 34 Digit Social Security number that serves for banking, computer access, phone, ident, medical service, key-lock and other business related functions..

Ben, Bells & Quag

On the 10th day of Fregomiz, (June 7th) Quag lights a large candle and places it on a shelf in his cabin. He still follows his childhood teachings of 'Myz Aja Une', the remembrance of the Dying Sun of the Trell homeworld.

Within seconds, the Starships fire alarm sounds and sprinkler system sprays foam into his cabin.



Arkol

Home World **Hansen's World**

Colonies Everywhere

BIOLOGY:

SIZ: 5-6ft.
 GRA: .96
 LSP: 90/160
 SEX: 2
 GES: 370
 BIR: 1
 ENV: 35-90
 SLP: 24w5s
 SML: B
 VIS: C
 TAS: D
 TOU: D
 HEA: D
 VOI: Liping Liquid Tenor
PSYCHOLOGY:
 TMP: 41
 MOT: 49

PERSONALITY AND VIEWS

ISCO: Good Government
 ICL: Dry Land Police
 Family: Important
 Work: Way of Life
 Play: With Family, Friends
 Wealth: Incidental
 Justice: Often Necessary
 Honor: Not Often Offended
 Humanity: Friendly
 Politics: Slows Work
 Red Tape: Minor Stupidity
 Space: Exploration, Destiny
 Warfare: A Waste

SOCIETY

CON: 2132
 JOI: 2154
 HRS: 1370
 QHR: C
 ATE: -
 SPC: -
 STF: -
 REL: A4

LANGUAGE

Arkol 95%
 Skay 46%
 Spalsith 20%

SKILL TENDENCIES:

Engineering, Construction, Aquatics, Electronics, Law, and Business.

GOOD TRAITS:

Determined Workers, Outstanding Perfectionists, Teachers

BAD TRAITS:

Impatient, Damp, Talk With A Lisp, Drool. Intolerant of Tugan.

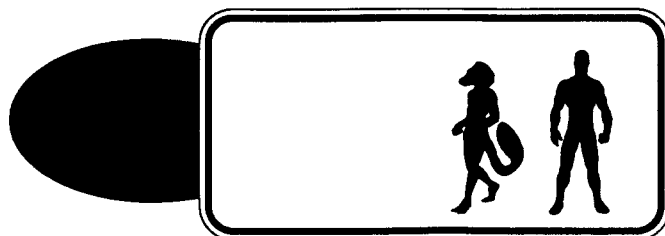
USUALLY SAYING:

"I'm gowing thwimming..."

NAMING:

Often a short two syllable name for use. Sstoh Sata, Thuu Thakk, Thomass Thookk, etc...

SIZE COMPARISON



ARKOL

The Arkol was the second race of three contacted on Hansen's World. This variant of the Sithap race is a highly industrious, semi-aquatic lizardine renowned for their incredible building and bio-engineering skills.

These aliens were instrumental in the establishment of Earth's deep sea cities and the construction/expansion of the lower levels of the seven existing sea mount cities.

The Arkol have colony cites on Terra as well as Faxn'Chr and Blant. On their own world, they have a thriving commerce with their land-based cousins, the Skay, but it is often considered an insult to even mention the name of the hated third race, the Tugan.

Historically the Arkol was the first of the races on Hansen IV to build large costal cities and discover scientific method. Printing and higher technology followed though flight was understood but not applied. Instead of turning to space, they turned to their deep seas. The Arkol have welcomed ISCO to help spread their race across space.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+0	+0	+02	+02
WIZ	ADA	ATU	STB
+0	-01	+0	+10



The Barlow are a recently discovered race, unique in their ability to use PSI and their totally pacifistic nature.

Barlow once fought a nuclear/bio-chemical world war of staggering proportions that nearly caused their extinction.

These green and brown bear like creatures have only recently rebuilt their civilization with a naturalistic base and a new philosophy. Just as they were looking to the stars they were discovered by an ISCO scout.

A few Barlow have spread across settled space, sharing their talents and learning what they can among their new friends.

The Barlow forepaws are as dexterous as hands. They can run on four legs or stand mostly erect.

Every Barlow has d4+1 psionic talents that start with a +6 skill level modifier. The first two are always Telepathy and Empathy.

The average Barlow is pacifistic to the extreme and will sacrifice itself to save another from violence.

STATISTICS MODIFICATIONS			
STR	CON	DEX	AGL
+04	+02	+0	+0
WIZ	ADA	ATU	STB
+0	+02	-02	+05

Barlow

Home World **Integrity**
Colonies -

BIOLOGY

SIZ: 5-6ft.
GRA: 1.18
LSP: 250/300
SEX: 2
GES: 800
BIR: 1
ENV: 20-90
SLP: 18w7s
SML: E
VIS: C
TAS: D
TOU: C
HEA: E
VOI: Soft Deep Growling

PSYCHOLOGY:

TMP: 96
MOT: 94

PERSONALITY AND VIEWS

ISCO: A Good Friend
ICL: Good Friends Also
Family: Everyone is Family
Work: According to Talent
Play: Part of Life
Wealth: Unknown Concept
Justice: Used with Care
Honor: Never Offended
Humanity: Family
Politics: Interested in
Red Tape: Confusing
Space: A Potential for Good
Warfare: The Ultimate Waste.

SOCIETY

CON: 2444
JOI: 2445
HRS: 1150
QHR: D/FG
ATE: 2100
SPC: 2430
STF: 2447
REL: AG3
LANGUAGE
Barlow 95%
Old Barlow 08%

SKILL TENDENCIES:

Child Care, Medical, Psychology

GOOD TRAITS:

Good Natured, Diplomatic, Loyal and Pleasant company for most races except Kymnar. Love Children and Animals.

BAD TRAITS:

Gullible, unsettle PSI users and often give them headaches, Howl in the presence of death or violence, Confused by actions, Children cluster around them.

USUALLY SAYING:

"I don't understand..."

NAMING:

Short syllable name with a number. Barlow 6, Marel 4, etc.

SIZE COMPARISON



Berian

Home World **Kashow**

Colonies 1

BIOLOGY:

SIZ: 5-6ft.
 GRA: 1.03
 LSP: 65/110
 SEX: 2
 GES: 522
 BIR: 1
 ENV: 15-68
 SLP: 14w6s
 SML: E
 VIS: E
 TAS: E
 TOU: E
 HEA: D
 VOI: Soft Tenor

PSYCHOLOGY:

TMP: 47
 MOT: 56

PERSONALITY AND VIEWS

ISCO: Watchful Father
 ICL: Accepted Law
 Family: Most Important
 Work: For Future
 Play: Not Very Often
 Wealth: A Happy Family
 Justice: Very Important
 Honor: Often Important
 Humanity: Liberators
 Politics: Tribal Level
 Red Tape: Dislike
 Space: A Work Place
 Warfare: To Be Avoided

SOCIETY

CON: 2162
 JOI: 2300
 HRS: 1670
 QHR: B
 ATE: -
 SPC: -
 STF: 2300
 REL: F3

LANGUAGE

Tandra 60%
 Sosha 19%
 Other 07%

SKILL TENDENCIES:

Engineering, Construction, Electronics, Fabrication, some Agriculture and Maintenance.

GOOD TRAITS:

Good Students, Serious. Trustworthy to the extreme.

BAD TRAITS:

Paranoid, Violent around Kymnar, Perfectionists, Carry small tasks to the extreme of completion.

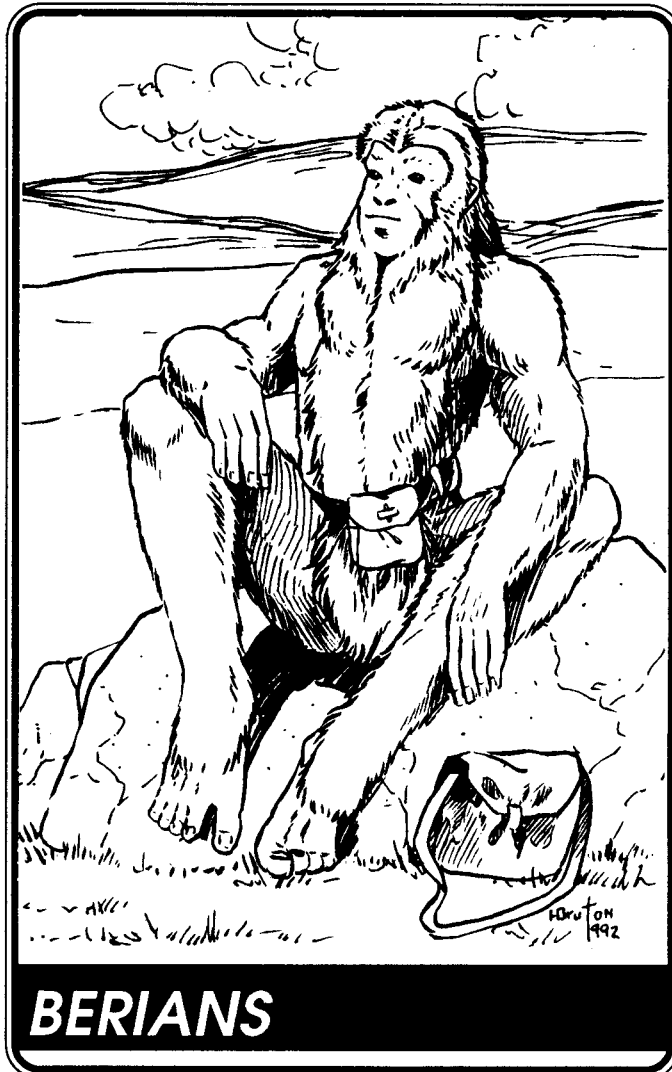
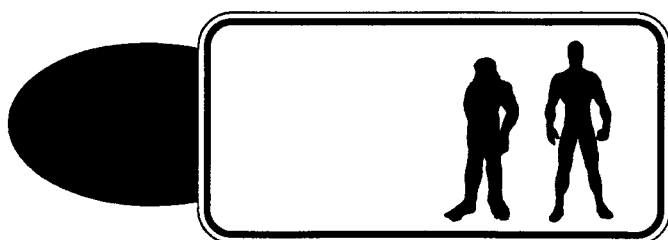
USUALLY SAYING:

"I recheck circuit now..."

NAMING:

Often a short syllable name for use, but not the family or personal name. Kitz, Op, Urble, Brit, Strun, etc...

SIZE COMPARISON



BERIANS

The Berian are a shy, basically peaceful race who are prone to attacks of paranoia, after a century of harsh enslavement by the aggressive Kymnar race. Freed from their long captivity at the beginning of the Celestar Corporate Scandal, the Berians went back to their home world and hid for more than half a century as they rebuilt their society.

Eventually, the more adventurous of the Berian began to filter out into settled space to carve a niche in interstellar society for their mostly primitive race.

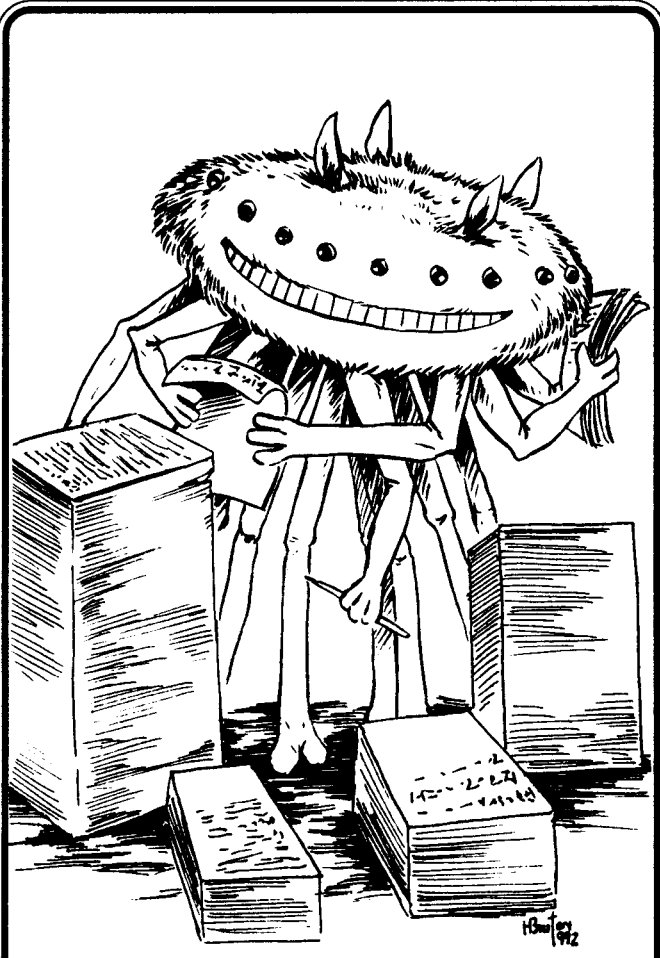
The Berian Tundra, over half of the land mass of their world, was soon found to have fantastic amounts of rare earths and Hafnium in deposits that are licensed to ISCO. Kashow is quickly becoming a rich world.

Regardless of the changes and lessons the Kymnar learned, the Berians still treat them like monsters. ISCO psychologists believe time will heal them.

Humanity has taken a special liking to the 'shy people' and have allowed many to work across ISCO space.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+0	+0	+01	+0
WIZ	ADA	ATU	STB
-01	-02	+0	-10



BLOX

Of all the intelligent life found, the Blox were the quickest to be assimilated into human societies.

The name "Blox" is uncommonly descriptive of this species that resembles a ball of blue fur standing on spindly legs. With eight arms and many teeth, they can be quite an unusual and terrifying sight when they smile. Bloxians often smile as they create mounds of perfectly stacked paperwork, regardless of electronic storage available.

In the Blox, most humans saw a perfect psychological mirror of themselves, efficiency, hard working, and loving their jobs. In Humanity, most Blox saw a deep need for organization, which they just happened to have the talent for. Now, Humans and Blox have become inseparable.

Possessing the best minds for governmental bureaucracy and paperwork, it is the Blox who keep business and planetary governments in power and solvency.

Blox economists believe another recession would be a racial insult to them. ISCO would like to agree.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-03	+02	+04	+01
WIZ	ADA	ATU	STB
+0	+01	-02	-20

Blox

Home World: Ott
Colonies: Everywhere

BIOLOGY:

SIZ: 3-4ft.
GRA: .71
LSP: 80/196
SEX: 6
GES: 470
BIR: d6
ENV: 60-115
SLP: 34w10s
SML: D
VIS: E
TAS: D
TOU: D
HEA: E
VOI: Shaky Tenor

PSYCHOLOGY:

TMP: 55
MOT: 52

PERSONALITY AND VIEWS

ISCO: A Grand Bureaucracy
ICL: The Police
Family: Incidental
Work: Absolute Enjoyment
Play: Detracts From Work
Wealth: Sought For
Justice: End of Stupidity
Honor: Often Offended
Humanity: Brothers
Politics: Great Fun
Red Tape: The Highest Goal
Space: A Greater Bureaucracy
Warfare: Ruins the Economy

SOCIETY

CON: 2154
JOI: 2175
HRS: 8 AD
QHR: F
ATE: -
SPC: -
STF: 2155
REL: E5/A2

LANGUAGE

Bloxian 95%
K'Blox 10%

SKILL TENDENCIES:

Merchanting, Engineering, Construction, Medical, Electronics, Business, and Law. Civil Service and Support.

GOOD TRAITS:

Good Natured, Diplomatic, Great at Organization

BAD TRAITS:

Consider red tape a necessity for life, Loud, Talkative, Repeat Themselves, Love Paperwork in Triplicate.

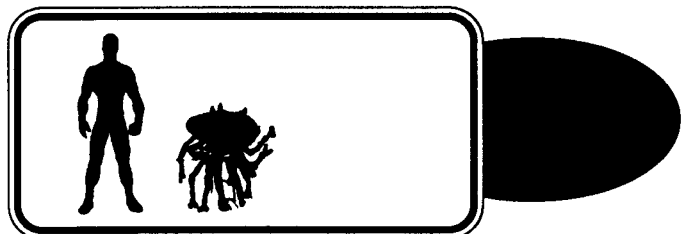
USUALLY SAYING:

"If you could fill out these 10 forms..."

NAMING:

Often a short two syllable name for use. Drendorf, Dorbang, Dedakk, Quombok, etc...

SIZE COMPARISON



Bor'Cha

Home World: Faxn'Chur
Colonies: Everywhere

BIOLOGY:

SIZ: 6-7ft.
GRA: 2.35
LSP: 90/200
SEX: 2
GES: 320
BIR: 1
ENV: 10-75
SLP: 18w9s
SML: H
VIS: D
TAS: C
TOU: D
HEA: E
VOI: Growling Bass

PSYCHOLOGY:

TMP: 64
MOT: 54

PERSONALITY AND VIEWS

ISCO: Working Partners
ICL: Law
Family: Most Important
Work: A Necessity to Play
Play: Drinking / Bar Fights
Wealth: What to Play With
Justice: A Good Thing
Honor: Not Offended
Humanity: Like A Lot
Politics: Ignore
Red Tape: Dislike
Space: Work and Play
Warfare: Necessary Evil

SOCIETY

CON: 2125
JOI: 2132
HRS: 1200 BC
QHR: C
ATE: 1890
SPC: 2030
STF: 2100
REL: B5

LANGUAGE

Bor'Cha 70%
Cen'Cha 21%
Mor'Cha 07%
16 Other 02%

SKILL TENDENCIES:

Engineering, Construction, Fabrication (All W and T Skills)

GOOD TRAITS:

Great Sense of Humor, Easy-Going, Think Bars are a Fantastic Invention. Large families that adopt humans as kin.

BAD TRAITS:

Like Cheap Tobacco, Loud, Drink Too Much, Gamble to Excess, Like Bar Fights, Don't Know Their Own Strength

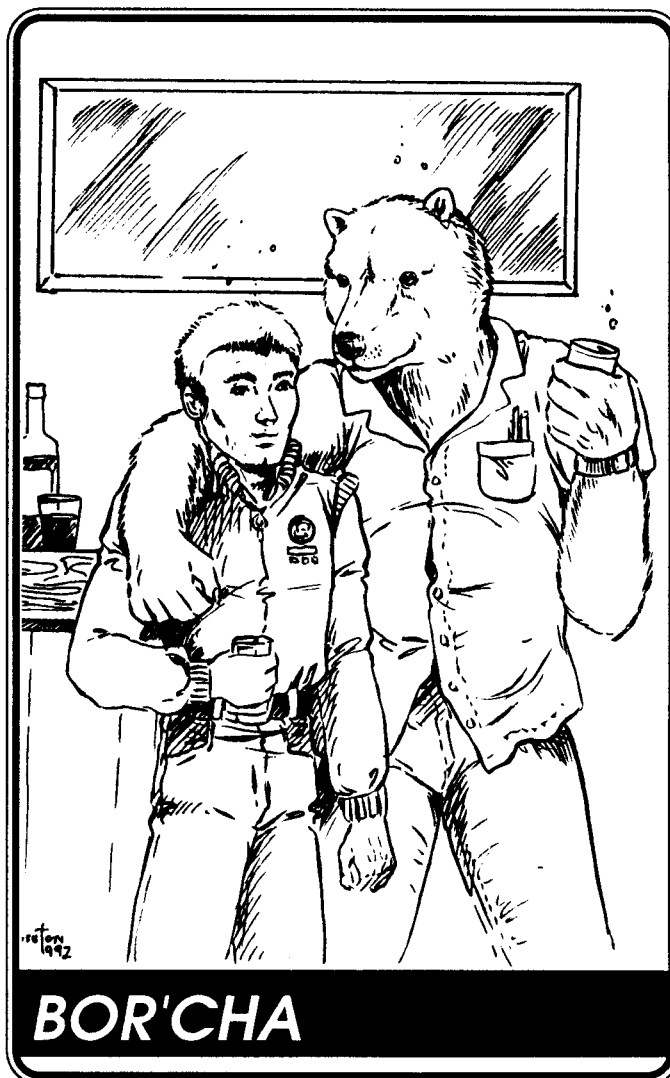
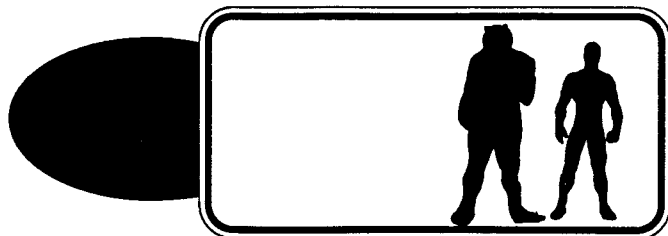
USUALLY SAYING:

"Let's get a brew after work..."

NAMING:

Bor'Cha or Human first names with Bor'Cha family name. Borulls B'Chma, Sam Cn'Maa, Br'n R'h, etc...

SIZE COMPARISON



BOR'CHA

Humanity's first contact with an alien race was with the Bor'Cha. The ursoid-like race welcomed a rescue shuttle as a damaged exploration starship fell toward destruction.

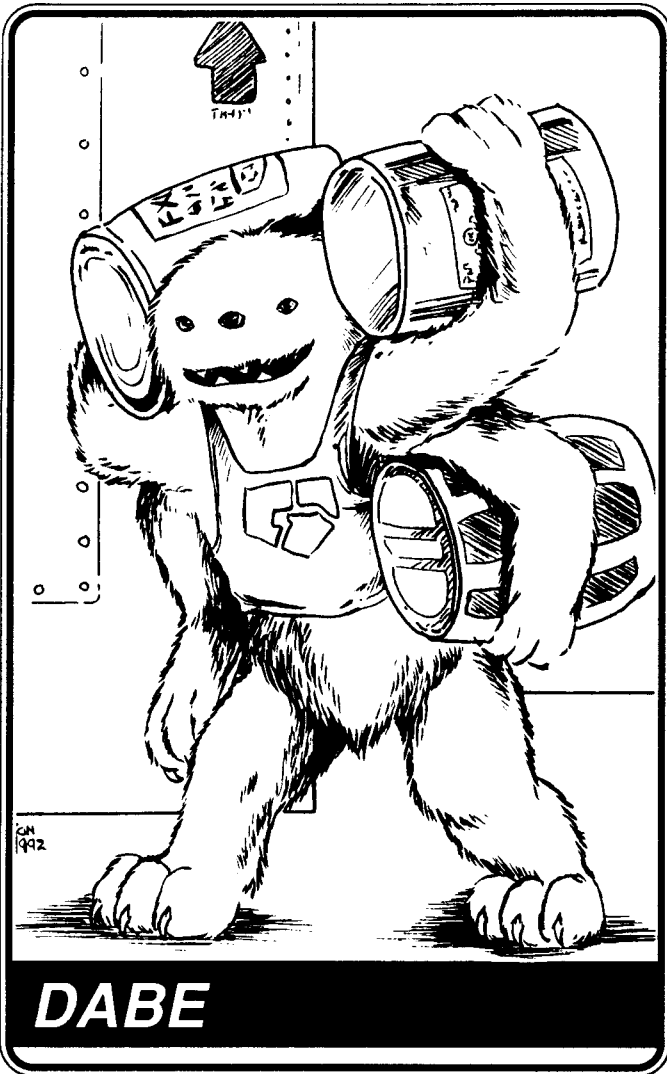
Bor'Cha are highly intelligent, strong and very social. They took to human social order quickly and soon began to blend in. They took jobs at construction sites where their great strength and heavy construction techniques were soon found to be invaluable. Both males and females of the species found easy friends among the humans they worked with. Humans and Bor'Cha loved sports and games, they easily mixed with humans in living areas.

Within a century, the original social order of the Bor'Cha began to disappear, becoming absorbed into the greater human societies.

From a cool, temperate world, the Bor'Cha are an intensely family-oriented society that has divided their world into ruling houses and extended families of up to 4000 Bor'Cha.

STATISTICS MODIFICATIONS

STR +16	CON +04	DEX -02	AGL -02
WIZ +0	ADA +01	ATU +0	STB +05



Dabe

Home World: **Blant**
 Colonies: 4
BIOLOGY:
 SIZ: 7-8ft.
 GRA: 1.46
 LSP: 60/130
 SEX: 2
 GES: 214
 BIR: 1
 ENV: 18-86
 SLP: 20w9s
 SML: C
 VIS: B
 TAS: C
 TOU: D
 HEA: D
 VOI: Mild Bass
PSYCHOLOGY:
 TMP: 59
 MOT: 24

PERSONALITY AND VIEWS

ISCO: Official Friends
 ICL: Police
 Family: Happy and Large
 Work: Play for Wealth
 Play: Whenever Possible
 Wealth: Buys Goodies
 Justice: Punishes Evil
 Honor: No Concept
 Humanity: Fun Friends
 Politics: Necessary Evil
 Red Tape: Universal
 Space: Big
 Warfare: Loud

SOCIETY

CON: 2290
 JOI: 2292
 HRS: 1120 BC
 QHR: B
 ATE: 1870
 SPC: 1790
 STF: -
 REL: F6
LANGUAGE
 Dabian 95%
 Other 03%

SKILL TENDENCIES:

Labor and Heavy Equipment Operation, Engineering

GOOD TRAITS:

Like Everybody, Polite, Friendly, Bizarre Sense of Humor

BAD TRAITS:

Do many Obnoxious Nerve-Wracking Things, Illogical, Practical Jokers, Often Eat House Pets (a Dabian Custom)

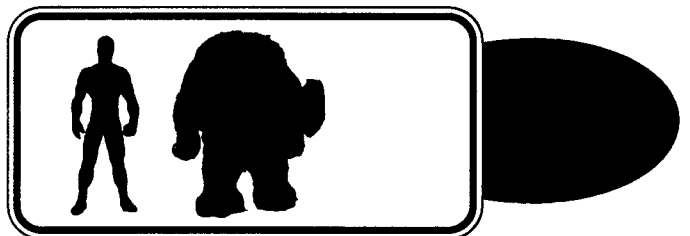
USUALLY SAYING:

"oh...Do de do...Uhhhh?..."

NAMING:

Names are often human first names to replace family/generation names that are up to 60 words long. Derble may be short for Derdaka Tck Mouli Dapa Norbil Et Alenkaa.

SIZE COMPARISON



The Dabe race blundered its way into space through a series of accidents and lucky guesses. Shortly after discovering spaceflight, they discovered the Frendle, a highly advanced race who chose to mind their own business.

The Dabes wanted to colonize this newfound world, but the Frendle had other ideas-they didn't like noisy neighbors. Not a race to give up without a fight, the Dabes tried again...and again...and again. Each of their Slower Than Lightships that reached the Frendle home world found itself towed back home at FTL speeds.

When ISCO found the Frendle, they also found the latest in a very long line of Dabe slow ships making their way to the Frendle homeworld for yet another attempt at colonization. The Dabe were overjoyed to meet mankind and the other known races. In fact, the Dabes naturally took to FTL life like mice in a cheese factory, and soon Dabes were a common sight everywhere. Humanity often wonders if this was a mistake.

STATISTICS MODIFICATIONS			
STR	CON	DEX	AGL
+12	+06	-03	-01
WIZ	ADA	ATU	STB
-02	+03	-06	+10

Erezejee

Home World: **Ezer VI**

Colonies: 02

BIOLOGY:

SIZ: 6-9ft.

GRA: 3.85

LSP: 250/375

SEX: 2

GES: 1456

BIR: 1 or 2

ENV: -200 to -30

SLP:1 150w20s

SML: B

VIS: B

TAS: B

TOU: A

HEA: C

VOI: Grating Rumble

PSYCHOLOGY:

TMP: 84

MOT: 45

PERSONALITY AND VIEWS

ISCO: Another Union

ICL: Bosses

Family: Most Important

Work: To Build

Play: Build Fun Thing

Wealth: Large Family

Justice: Punishes Lazy

Honor: Good Work

Humanity: Monument Builders

Politics: Big Labor Union

Red Tape: Accepted Fact

Space: Lots of Room

Warfare: Destroys

SOCIETY

CON: 2444

JOI: 2448

HRS: 3340 BC

QHR: E

ATE: 2004

SPC: 1940

STF: 2440

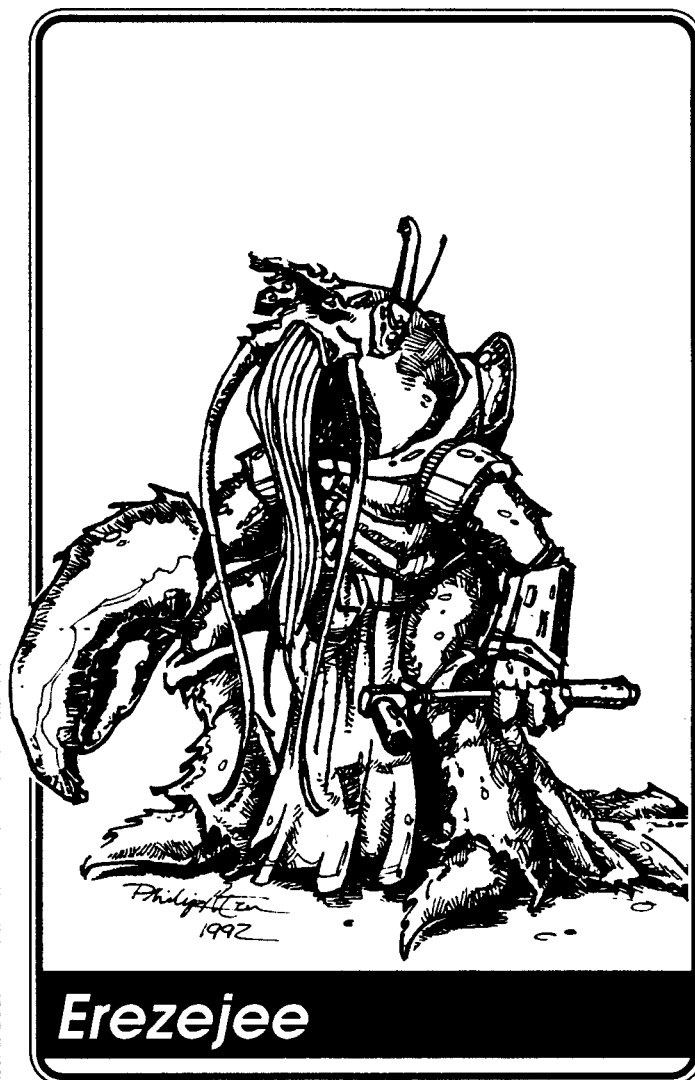
REL: B4

LANGUAGE

Erezent 96%

Terlan 20%

MSTL 28%



Erezejee

Looking like a cross between a truck and a lobster, the Erezejee are the manufacturing specialists of the technologically advanced Union of Methane Worlds. The highest form of art to this race is engineering. They are born, live their lives, and die as engineers.

Erezejee have a well known love of family closeness and friends. They are one of the few races that did not develop warfare until threatened by an outside source. From their frozen hell of a world they lumbered into space for metals and found a Hagoni colony. After the invaders threatened them, they regretfully disposed of the colony by dropping large rocks at high velocities.

Unlike the Hagoni, they immediately liked Humanity and deeded them the remains of the Terrestrial world with provision to help them defend their home and start other colonies on worlds ISCO can't use. Teaming with the Paebaks, they will eventually form the Engineering core of ISCO space.

SKILL TENDENCIES:

Engineering, Fabrication

GOOD TRAITS:

Great Engineers, Builders, Safety Oriented, Always Correct.

BAD TRAITS:

Slow, Ponderous, Exceedingly Correct, Aggravate Paebaks. Will always overbuild any simple part.

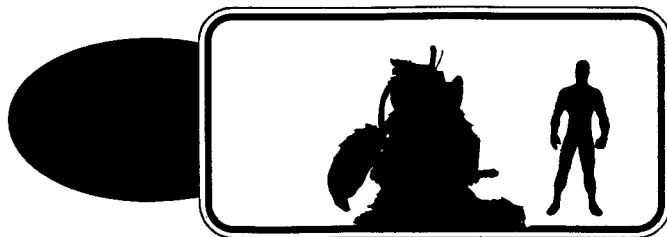
USUALLY SAYING:

"Hmmm...add a strut here and brace there and..."

NAMING:

Names are a complex rumbling belch not translatable by easy means. Symbols painted on their sides are common to identify family and individual. Nicknames are common and Buckminster is a favorite.

SIZE COMPARISON



STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+70	+10	+04	-05
WIZ	ADA	ATU	STB
-04	+02	+02	+10



FALCS/PODA

The coming of the disturbing creature called 'Man' has shaken the Falcs and made them realize that Chaos and Warfare had the potential to spread across space.

With this fact in mind, the Falcs have engineered a very large number of treaties oriented towards their protection and non-interference by mankind as well as his allies.

Medical personnel, researchers, and freelance traders are among the few Falcs who venture from their tropical paradise of a homeworld.

While the Falcs had spceflight for some time, they never achieved starflight. The Falcs have constructed 3 huge space colonies at their LaGrange points. These old colonies are home to a lightworld version of the Falcs now called the Poda.

Most of the Falcs have an inherant Psionic ability in Em-pathy that starts with a level of 3. This keeps the Falcs socially close and tuned to the people around them. Mostly they ignore this talent until it is needed.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-01	+0	+02	+04
WIZ	ADA	ATU	STB
-04	-03	-04	-20

Falcs

Home World: **Bayl Eegt**
 Colonies: 3 (orbital)
BIOLOGY:
 SIZ: 6-7ft.
 GRA: .85
 LSP: 70/140
 SEX: 2
 GES: 340
 BIR: 1
 ENV: 45-96
 SLP: 16w7s
 SML: E
 VIS: D
 TAS: E
 TOU: F
 HEA: F
 VOI: Mild Tenor
PSYCHOLOGY:
 TMP: 72
 MOT: 78

PERSONALITY AND VIEWS

ISCO: Government
 ICL: Police
 Family: Large Communes
 Work: Accepted Necessity
 Play: Never
 Wealth: Knowledge
 Justice: A Fact of Life
 Honor: Illogical Concept
 Humanity: Not Always Logical
 Politics: Part of Life
 Red Tape: Unknown
 Space: Future Resources
 Warfare: Detestable

SOCIETY

CON:	2425
JOI:	2427
HRS:	1290 BC
QHR:	E
ATE:	1410
SPC:	1640
STF:	-
REL:	A3
LANGUAGE	
Falcs	95%
Poda	20%

SKILL TENDENCIES:

Fine Technical and Electronics, Computers, Medicine

GOOD TRAITS:

Very Fast, Agile, Logical, Think before they act, Honest

BAD TRAITS:

Smug, Dull and Boring at parties, Like to hang from the ceiling, Scratch

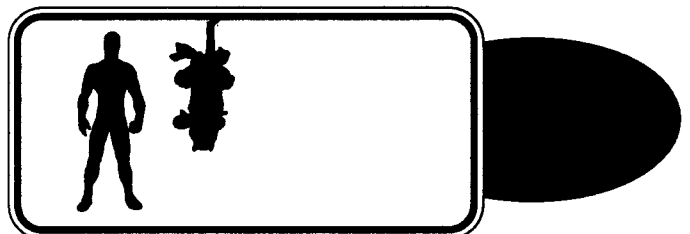
USUALLY SAYING:

"Interesting..."

NAMING:

Short syllables in a group. Hach'Ne'Ha'Pon'Phet, Ba'Ko'Ph'Phi. The first translates as Astronomer Family of the Desert. The second as Loud-Mouthed Politician...

SIZE COMPARISON



Frendle

Home World: **Wilkinson Four**

Colonies: None

BIOLOGY:

SIZ: 5-6ft.

GRA: 1.1

LSP: 180/240

SEX: 3

GES: 940

BIR: d4

ENV: 55-130

SLP: 130w13s

SML: B

VIS: E

TAS: D

TOU: F

HEA: F

VOI: Harsh Alto

PSYCHOLOGY:

TMP: 88

MOT: 16

PERSONALITY AND VIEWS

ISCO: Government

ICL: Police

Family: Irrelevant

Work: Accepted Necessity

Play: No

Wealth: No Concept

Justice: Simple Necessity

Honor: Most Important

Humanity: Tolerated

Politics: Unknown

Red Tape: Unknown

Space: Necessary for Future

Warfare: Almost Unknown

SOCIETY

CON: 2290

JOI: 2329

HRS: 2036 BC

QHR: E

ATE: -

SPC: 1340

STF: 1600

REL: F2

LANGUAGE

Frendle 95%

Glm 20%



FRENDLE

The Frendle are a race whose physical characteristics can be explained as a cross between a crustacean and an 8-armed reptile.

Socially, the Frendle have mostly kept to themselves for over 5000 years. Only when the insistent Dabian race appeared, did they decide that total isolation was now impossible. After 400 years of harassment from the Dabes, and then Mankind, they began a social battle to change their isolation into a controlled expansion with other races.

In settled space, the Frendle are beginning to mingle with aliens as they show a marked talent for electronics and computers.

Sociologists believe the Frendle that leave their home-world are considered insane by their own species. No aliens are permitted on the Frendle homeworld.

Their eyes brighten from green to luminescent orange when angry. Their one odd custom disturbs many of the races. Frendle will often eat dead friends to honor them.

SKILL TENDENCIES:

Engineering, Fine Technical and Electronics, Computers, Medicine

GOOD TRAITS:

Fast, Agile, Outstanding use of Logic and Intelligence, Protective of Friends

BAD TRAITS:

Disturbing, Follow a Different form of Honor and Logic, Quiet, Deadly if Provoked, Hold Grudges

USUALLY SAYING:

"Hmmmmmmm..."

NAMING:

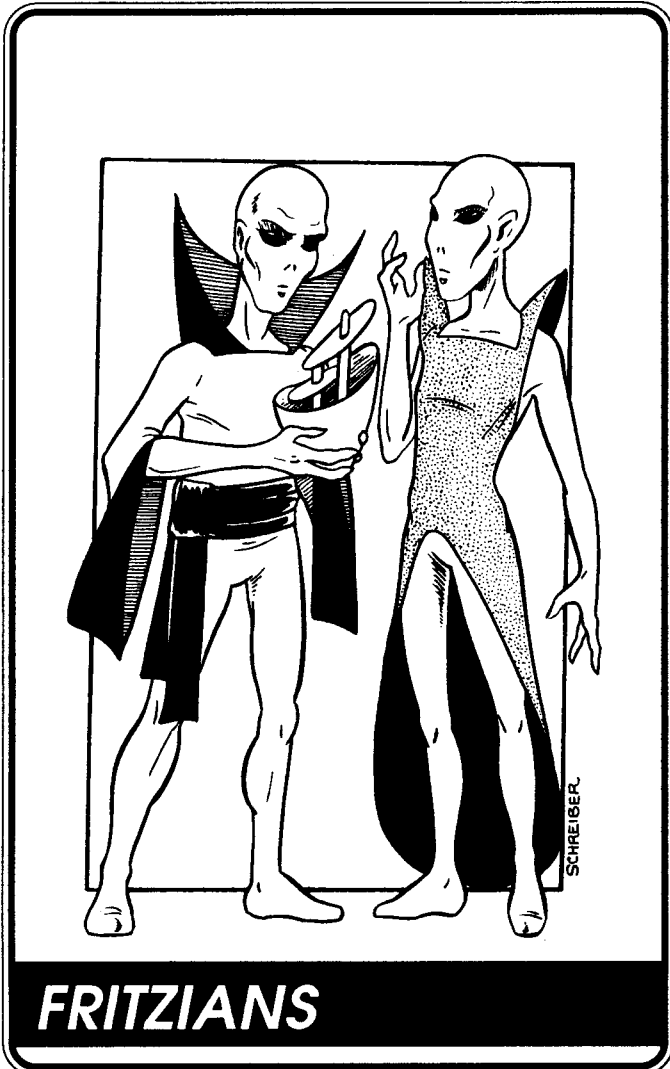
Short syllables in a group or single words. Leib, Stsh, Morzz, etc...

SIZE COMPARISON



STATISTICS MODIFICATIONS

STR +0	CON +02	DEX +04	AGL +08
WIZ -02	ADA -04	ATU +02	STB +15



Contacted in 2372, the Fritzians, as they are called, are the oldest of the star faring races. Technologically advanced well beyond FTL levels, they have sunk into a simple "don't rock the boat" attitude that has isolated them from other races and cultures.

With no concern for other races, they go about their own business and commerce to their one colony, Sedak. Information on the Fritzians comes from rare traders that have been contacted and the wreckage of one of their sun-sail starships that was salvaged near Earth. From this wreck came a new wave of space-design engineering and Zero-Phase engineering that has introduced contra-grav to FTL space.

It is believed the Fritzians were part of or knew of the older civilization that crossed ISCO space. On this they refuse to comment.

Fritzians in contact with other races often are the young or fearless. A Fritzian will never speak to a Grex.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-04	+02	+02	+01
WIZ	ADA	ATU	STB
+04	-02	+03	-25

Fritzian

Home World: **Xtichinanct**

Colonies: 1

BIOLOGY:

SIZ: 4ft.
 GRA: .86
 LSP: 240/550
 SEX: 2
 GES: 410
 BIR: 1
 ENV: 50-85
 SLP: 29w7s
 SML: C
 VIS: D
 TAS: D
 TOU: D
 HEA: C
 VOI: Mild Alto

PSYCHOLOGY:

TMP: 34
 MOT: 90

PERSONALITY AND VIEWS

ISCO: Busybodies
 ICL: Busybodies
 Family: Continuity of Name
 Work: For Robots
 Play: With Young
 Wealth: Comfort
 Justice: Not a Necessity
 Honor: Unused Concept
 Humanity: Children
 Politics: Primitive
 Red Tape: Stupid
 Space: Backyard
 Warfare: Disgusting

SOCIETY

CON: 2372
 JOI: -
 HRS: 19992 BC
 QHR: E
 ATE: 18200 BC
 SPC: 16100 BC
 STF: 12000 BC
 REL: E3

LANGUAGE

Fritzian 90%
 Zocge 20%

SKILL TENDENCIES:

Engineering, Trade, Medicine

GOOD TRAITS:

Trade Advanced Technology for Art, Music, Antiques and other Unusual Items.

BAD TRAITS:

Snobbish, Refuse to talk to Other Races, Fast to Insult, Hate Grex, Consider the Krelvin Idiot Savants.

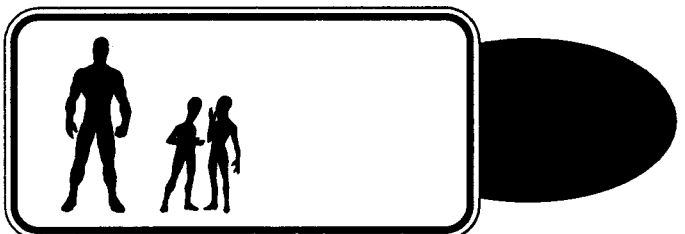
USUALLY SAYING:

"But it's so simple a child could understand..."

NAMING:

Short syllables in a string that resembles Chinese in tone quality. Chn Hrk, Ye Zil, Cal Nap, Abn Ool, etc...

SIZE COMPARISON



GreX

Home World: **Kirl Seban**

Colonies: -

BIOLOGY:

SIZ: 4ft.
 GRA: .98
 LSP: 60/105
 SEX: 2
 GES: 320
 BIR: 1
 ENV: 25-112
 SLP: 20w4s
 SML: G
 VIS: D
 TAS: D
 TOU: D
 HEA: F
 VOI: Mild Alto

PSYCHOLOGY:

TMP: 45
 MOT: 61

PERSONALITY AND VIEWS

ISCO: Aid
 ICL: Law and Authority
 Family: Absolutely Important
 Work: To Survive
 Play: With Young
 Wealth: Money for Home
 Justice: A Necessity
 Honor: Unknown Concept
 Humanity: Helpers
 Politics: Slows Work
 Red Tape: No Excuse For
 Space: Destiny Waits
 Warfare: Fact of Survival

SOCIETY

CON: 2330
 JOI: 2401
 HRS: 1196
 QHR: C
 ATE: 1590
 SPC: 2159
 STF: 2300
 REL: E3

LANGUAGE

GreXian 85%
 Low GreX 35%
 High GreX 03%

SKILL TENDENCIES:

Engineering, Fabrication, Land Management, Medicine, Social Work, and Computers

GOOD TRAITS:

Loyal, Fast, Agile, Protective, Family Oriented, Survivalists

BAD TRAITS:

Alcoholism, Easily Panicked, Shed Fur, Fight to Kill, Destroy House Plants, Hate the color Green.

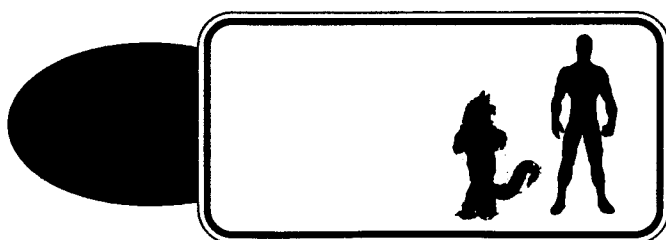
USUALLY SAYING:

"It's Green, and has leaves!..Arghhhhhhhhhhhhh."

NAMING:

Names are mostly nicknames for GreXian clicks, growls, and other difficult syllables.

SIZE COMPARISON



GREX

Once a thriving civilization, the GreX world lies in ruin. Until disease decimated their population into a handful of ragged survivors, the GreX enjoyed a high technology that rivaled the best of FTL space.

With technology in ruin, ISCO saved the GreX from the hellish plant life that was closing in to finish them off. Now, with dedication and aid, the GreX are rebuilding the hot-house jungle they call home.

Many GreX believe that their race once was a greater star-spanning empire of vicious conquerors that were exiled to Kirl VII for their crimes and conquest of intelligent life. While no evidence verifies this, many ruins across explored space point to a long dead Empire-like civilization with FTL drive capability.

GreX do not understand why Fritizians will not tolerate their species in its presence. Most are just thankful to be alive and off their Home world. Find GreX travelling in small family groups.

STATISTICS MODIFICATIONS

STR -03	CON +04	DEX +03	AGL +03
WIZ -01	ADA +0	ATU +0	STB +0



KENDAK

One of the only hive-mind intelligences found, the Kendak comprise a planet-wide society that has not changed in over 200,000 years.

Kendak are hatched in groups of 12 that share a common mind form of telepathy under the control of the hivemasters and overmind of the hive.

Many Kendak hatch groups are born with a mental mutation that isolates them from the hive mind. These are disposed of, or traded on the black market as slaves. The insect-like, sterile worker functions as if their new owner is a substitute Hivemaster. Kendak operates as a single individual in regards to any experience and learned skills which makes them ideal for repetitive manufacturing.

As groups take on their own character they become highly individualistic, often copying a single human or alien leader in manner and personality. In extreme cases the group will become highly humanized, a basic mirror of a human personality shared by 12 individuals.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-04	+04	+01	+02
WIZ	ADA	ATU	STB
-04	+0	+0	+10

Kendak

Home World: **Harken's Hive**

Colonies: -

BIOLOGY:

- SIZ: 4-5ft.
- GRA: .89
- LSP: 45/75
- SEX: 3
- GES: 94
- BIR: Egg Cluster of 12
- ENV: 160
- SLP: 49w5s
- SML: H
- VIS: C
- TAS: G
- TOU: H
- HEA: E
- VOI: Nasal Buzz

PSYCHOLOGY:

- TMP: 50
- MOT: 87

PERSONALITY AND VIEWS

- ISCO: Hive Leaders
- ICL: Warrior Workers
- Family: The Hive
- Work: Life's Purpose
- Play: Unknown Concept
- Wealth: Unknown Concept
- Justice: Hive Leaders
- Honor: Unknown Concept
- Humanity: Hive Leaders
- Politics: Hive Business
- Red Tape: Unknown Concept
- Space: Distance
- Warfare: Unknown

SOCIETY

- CON: 2377
- JOI: -
- HRS: -
- QHR: -
- ATE: -
- SPC: -
- STF: -
- REL: C5
- LANGUAGE**
- Signe 50%
- Loglan 95%

SKILL TENDENCIES:

Engineering, Fabrication, Any 1 Language, Menial Work, and Cuisine.

GOOD TRAITS:

Loyal to the Death, Hardworking

BAD TRAITS:

Smell Odd, Have serious trouble with Pronouns (I, We, Myself, Ourselves), Give PSI's Migraine Headaches

USUALLY SAYING:

"Permission to arm ourselves?..."

NAMING:

Often a human or alien name with an ending like: "and gang", or "and the group", etc...

SIZE COMPARISON



Krelvin

Home World: **Hidden**
 Colonies: **Suspected**
BIOLOGY:
 SIZ: 2-3ft.
 GRA: .92
 LSP: 570/1250
 SEX: 2
 GES: 2340
 BIR: 1
 ENV: 40-85
 SLP: 98w15s
 SML: A
 VIS: F
 TAS: D
 TOU: G
 HEA: F
 VOI: Cultured Baritone
PSYCHOLOGY:
 TMP: 55
 MOT: 75

PERSONALITY AND VIEWS

ISCO: A Good Idea
 ICL: Kids With Guns
 Family: Won't Discuss
 Work: Not Necessary
 Play: Whenever Possible
 Wealth: Fleeting
 Justice: Important
 Honor: Important for Some
 Humanity: Children
 Politics: Games
 Red Tape: Ridiculous
 Space: A Garden
 Warfare: A Waste

SOCIETY

CON: 2445
 JOI: -
 HRS: -
 QHR: -
 ATE: -
 SPC: -
 STF: -
 REL: C5
LANGUAGE
 Krelvin 99%
 Other 75%

SKILL TENDENCIES:

Psychology, Medicine, Sociology, Linguistics, Comedy

GOOD TRAITS:

Intelligent, Resourceful, Like Humanity a lot.

BAD TRAITS:

Masters of Mental Illusion and Control, Jokers, Easily Bored, Known to masquerade as Humans and other races by living within a construct. Elaborate Practical Jokes.

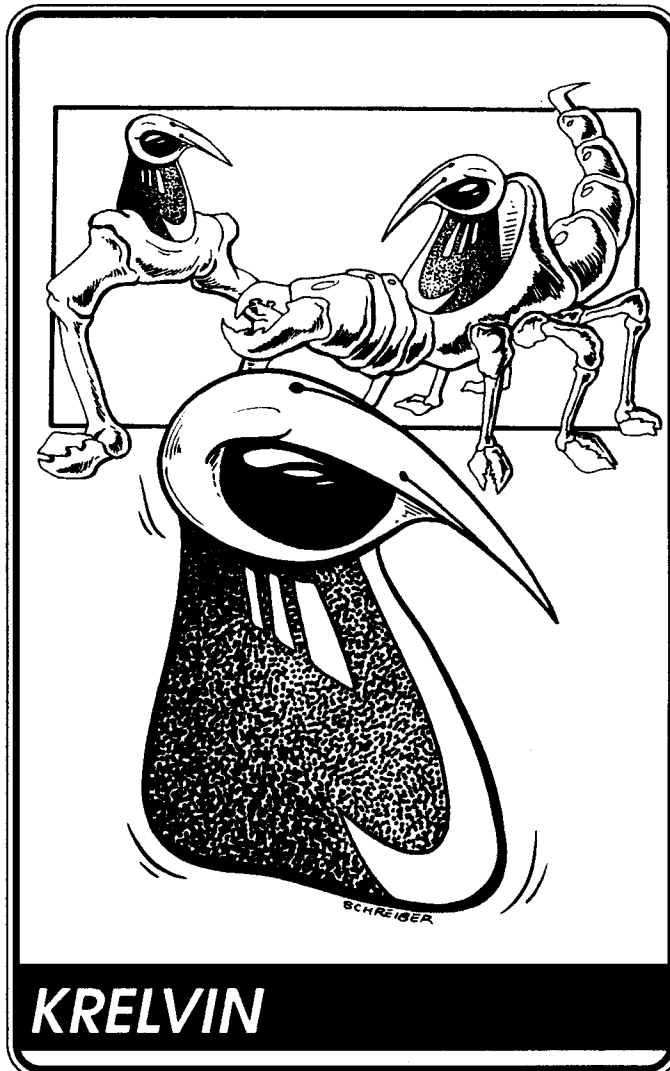
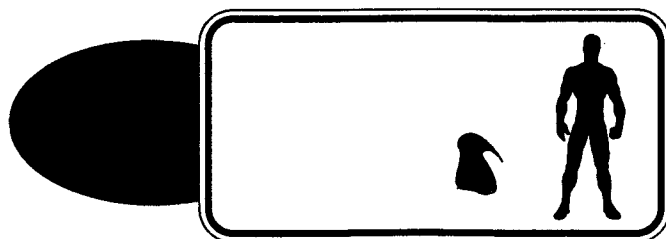
USUALLY SAYING:

"I have a fun idea!..."

NAMING:

Names are often a pun prefixed with a title such as Dr. or a rank. Dr. Zinds, General Seuzz, Dr. Payne etc...

SIZE COMPARISON



KRELVIN

The oddest of the known races, the Krelvin are suspected to inhabit a Dyson Sphere in the general vicinity of the ISCO frontier.

It is apparent that the Krelvin are masters of genetic engineering and design, and have changed themselves to their present shape though only God knows why.

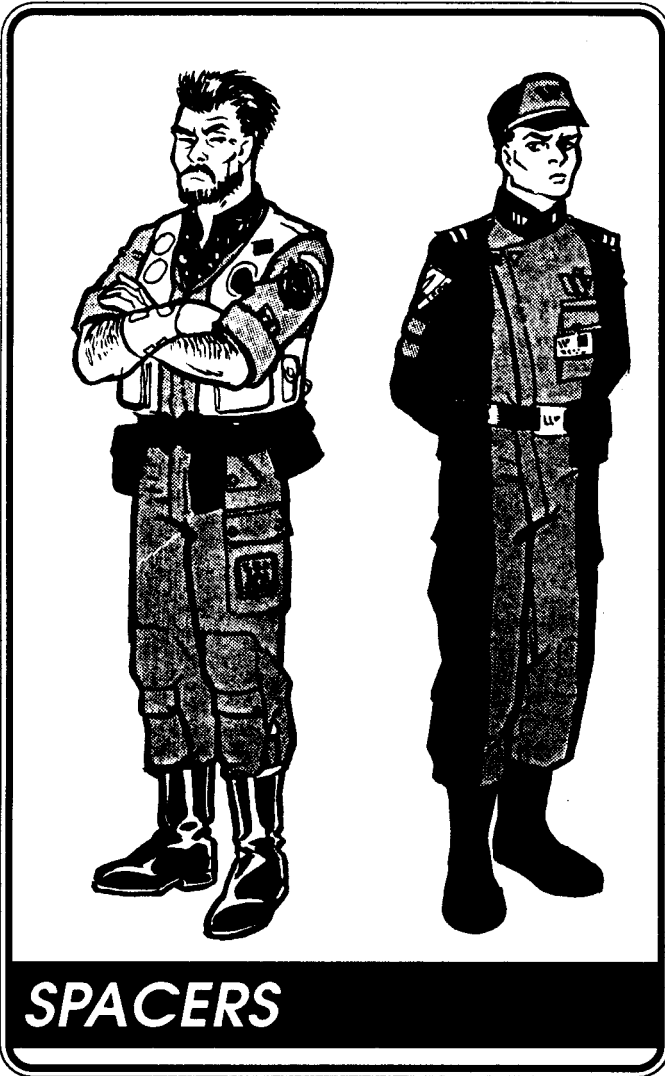
Concerned with the welfare of mankind and the other races, Krelvin venture into ISCO space for their own reasons. Unfortunately, Krelvin are the kind of practical joker who will have a heart-to-heart talk with a Bor'Cha while presenting him with a box of loaded cigars.

Some researchers speculate that the Krelvin have advanced beyond any imagined technology, and are out to simply have fun.

Krelvin possess complete mastery over the PSI abilities of Empathy, Telepathy, Spectral Kinesis, and Telekinesis. The average Krelvin free-floats, or is carried in a box by a bio-construct of an animal or humanoid. (See Also Pg. 64)

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-06	+02	+04	+08
WIZ	ADA	ATU	STB
+0	+02	+04	+08



SPACERS

In the five centuries since their first emergence into space, the Human race has become the driving force of Interstellar Society. The Inter-Stellar Scientific Co-Operative (ISCO) and its multi-world legal branch, the Interstellar Court of Law (ICL) are effectively responsible for the management of interstellar society.

Behind it all are the men and women who fly the starships and man the interstellar stations. Called Spacers, they believe themselves an elite, much like the 'hot-shot' pilots of the Twentieth and Twenty Second Century.

Spacers divide themselves into two groups, Independents and Corps. Independents have an Anti-Corporate attitude as the spit and polish Corporate Spacers feel that Independents are only a level above slugs.

Both can only agree that they dislike settling in one place and that Grounders are mostly cattle under the watchful eyes of government. Most retire to stations in space or open small bars near Starports.

STATISTICS MODIFICATIONS

STR +0	CON +0	DEX +0	AGL +0
WIZ +0	ADA +02	ATU +01	STB +10

Spacers, Human

Home World: **None**
 Colonies: Any Orbital Starports

BIOLOGY:

SIZ: 5'5"-6'5"ft.
 GRA: 1.0
 LSP: 90/190
 SEX: 2
 GES: 270
 BIR: 1
 ENV: 25-115
 SLP: 16w8s
 SML: D
 VIS: D
 TAS: D
 TOU: D
 HEA: D
 VOI: Bass - Soprano

PSYCHOLOGY:

TMP: 55
 MOT: 50

PERSONALITY AND VIEWS

ISCO: Government
 ICL: Police
 Family: Mostly Important
 Work: Necessary
 Play: Whenever Possible
 Wealth: Life's Goal
 Justice: Important
 Honor: Variable
 Humanity: Positive
 Politics: A Hobby
 Red Tape: Accepted
 Space: Greater Expansion
 Warfare: To Be Avoided

SOCIETY

CON: -
 JOI: -
 HRS: 1
 QHR: D
 ATE: 1945
 SPC: 1959
 STF: 2052
 REL: Any
LANGUAGE
 English 95%
 Chinese 20%
 Russian 10%
 Other 55%

SKILL TENDENCIES:

Any, Even Strange ones not listed anywhere

GOOD TRAITS:

Good Fighters, Trusted Friends

BAD TRAITS:

Unpredictable, Smug, Pushy, Variable Temperament, Think they Own the Starlanes.

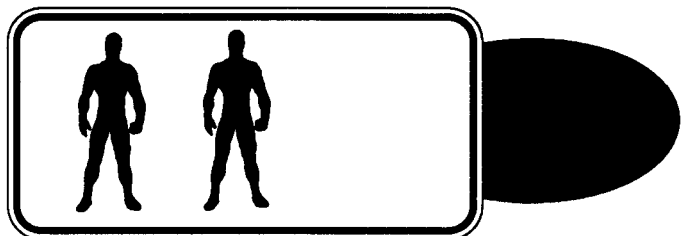
USUALLY SAYING:

"...so kid, you really want to work in space!"

NAMING:

Humans names are often based upon objects or their ancestors occupations. These vary with language and race. Chen Carpenter, Bill Smith, Dave Zerwinski, etc...

SIZE COMPARISON



Grounders, Human

Home World: **Earth**
 Colonies: 47 Mixed
BIOLOGY:
 SIZ: 4-7ft.
 GRA: 1.0
 LSP: 90/160
 SEX: 2
 GES: 189
 BIR: 1
 ENV: 25-115
 SLP: 16w8s
 SML: D
 VIS: D
 TAS: D
 TOU: D
 HEA: D
 VOI: Bass - Soprano
PSYCHOLOGY:
 TMP: 50
 MOT: 50

PERSONALITY AND VIEWS

ISCO: Government
 ICL: Police
 Family: Mostly Important
 Work: Necessary
 Play: Whenever Possible
 Wealth: Life's Goal
 Justice: Important
 Honor: Variable
 Humanity: Positive
 Politics: A Hobby
 Red Tape: As Usual
 Warfare: A Fact of Life

SOCIETY

CON: -
 JOI: -
 HRS: 2000 BC
 QHR: A-DD
 ATE: 1945
 SPC: 1959
 STF: 2052
 REL: Any
LANGUAGE
 English 85%
 Chinese 40%
 Japanese 10%
 Other 60%

SKILL TENDENCIES:

Business, Agriculture, Manufacturing, Any possible skills listed or not listed.

GOOD TRAITS:

Basically Honest, Friendly, Proud, Achievers and Workers.

BAD TRAITS:

Unpredictable, Variable Temperament, Criminals, Many Psychologically Unstable in varied situations. Intolerant.

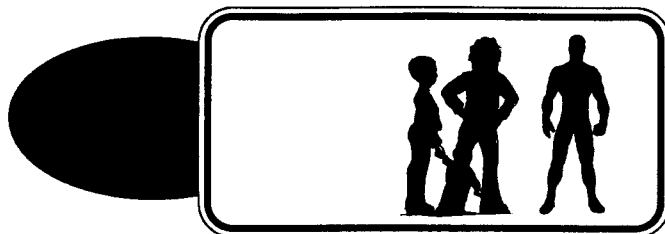
USUALLY SAYING:

"...you can take your starship and cram it where ..."

NAMING:

Humans names are based upon objects, places, or their ancestors occupations. These vary with language and race. Roghavendra Bahatnygas, Fred Ableman, Sam Lester, Akron Morgan, etc.

SIZE COMPARISON



GROUNDERS

Grounders are the common folk that worked to put humankind into space. They are the average 'Joes' who produce, consume, have families, and colonize the stars. They come in every terrestrial race, size and color. Humans have the common bond of being creative and resourceful in the face of economic and social difficulty.

The average Grounder is proud but often jealous of the folks who travel the starlanes. Most work the 9 to 3 every week, mundane jobs that don't let them see the wonders of space and alien worlds. Many Grounders think Spacers have an attitude about them that looks down at the earth-bound folk. While both sides are a little right and a little wrong, it keeps social interaction between them lively and is prone to cause longterm friendships and feuds.

Many Grounders become Spacers if the circumstances are right. Spacers often long to vacation to their home world where the air is not canned and they have a living world beneath them.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+0	+01	+0	+0
WIZ	ADA	ATU	STB
-01	-02	-04	+0



HEAVIES & LIGHTS

First noticed on the primitive Twentieth Century space platforms, was a medical condition that affected biological systems exposed to long term Zero G. With limited exposure, treatment was exercise and controlled by diet. The resulting bone mass loss and heightening could be kept to a minimum.

Colonization of light and heavy worlds brought this problem back as humans adapted to their newfound worlds. Within a few generations the norm for those living on lighter worlds was height as the heavier worlds bred a strong stocky people. While Heavies have little trouble adapting to lighter environments, Lighters will need an EXO-skeletal suit designed to supplement their lesser frame and more fragile bone structure. On starships and stations the gravity is technologically generated at a constant rate of .98 of Earth normal.

The first modifier listed is for Lighters, the second Heavies.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-04/+06	+0/+01	+01/+0	+01/+0
WIZ	ADA	ATU	STB
+0/-01	+0/+0	+0/+0	+0/+0

Heavy & Light World Humans

Home World: **Not Earth**
 Colonies: **A Few**
BIOLOGY:

	LIGHTERS:	HEAVIES:
SIZ:	6-7ft.	3-5ft.
GRA:	Less 1.0	Higher 1.0
LSP:	90/190	60/170
SEX:	2	2
GES:	189	189
BIR:	1	1
ENV:	35-105	30-110
SLP:	16w8s	16w8s
SML:	D	E
VIS:	D	D
TAS:	D	D
TOU:	D	E
HEA:	D	D
VOI:	Bass - Soprano	Bass - Alto
PSYCHOLOGY:		
TMP:	50	55
MOT:	50	50

PERSONALITY AND VIEWS

ISCO:	Government
ICL:	Police
Family:	Mostly Important
Work:	Necessary
Play:	Whenever Possible
Wealth:	Life's Goal
Justice:	Important
Honor:	Variable
Humanity:	Positive
Politics:	A Hobby
Red Tape:	Accepted
Space:	Greater Expansion
Warfare:	To Be Avoided

SOCIETY

CON:	-
JOI:	-
HRS:	-
QHR:	-
ATE:	-
SPC:	-
STF:	-
REL:	Any
LANGUAGE	
English	95%
Chinese	20%
Russian	10%
Other	55%

SKILL TENDENCIES:

Any, Even Strange ones not listed anywhere

GOOD TRAITS:

Good Fighters, Trusted Friends

BAD TRAITS:

Unpredictable, Smug, Pushy, Variable Temperament, Think they Own the Starlanes.

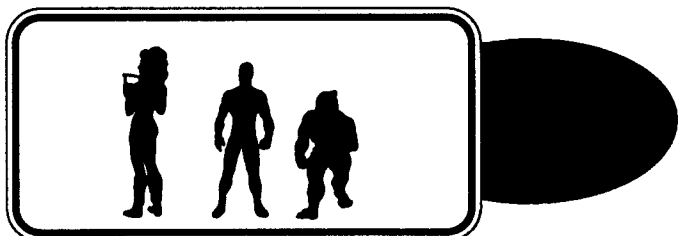
USUALLY SAYING:

"...You Talkin to me? Who you callin short?..."

NAMING:

Humans names are often based upon objects or their ancestors occupations. These vary with language and race.

SIZE COMPARISON



Rockers & NuPunks

Home World: Earth
 Colonies: There Too
BIOLOGY:
 SIZ: 4-7ft.
 GRA: 1.0
 LSP: 90/190
 SEX: 2
 GES: 189
 BIR: 1
 ENV: 25-115
 SLP: 16w8s
 SML: D
 VIS: D
 TAS: D
 TOU: D
 HEA: D
 VOI: Bass - Soprano
PSYCHOLOGY:
 TMP: 50
 MOT: 50

PERSONALITY AND VIEWS

ISCO: Government
 ICL: Police
 Family: Mostly Important
 Work: Sometimes
 Play: Always
 Wealth: Life's Goal
 Justice: Important
 Honor: Variable
 Humanity: Positive
 Politics: A Drag
 Red Tape: Bogus
 Warfare: A Bigger Drag

SOCIETY

CON: -
 JOI: -
 HRS: 1950
 QHR: C
 ATE: 1945
 SPC: 1959
 STF: 2052
 REL: Any
LANGUAGE
 English 75%
 Japanese 20%
 Russian 20%
 Slang 90%

SKILL TENDENCIES:

ROCKERS

Music, Almost any skill.

GOOD TRAITS:

Intelligent, Resourceful
 Friendly

BAD TRAITS:

Enthusiastic
 Curious, Poor

USUALLY SAYING:

"I can play Classic
 Oingo Boingo!"

NAMING:

Human names or Slang names. Jer, Dora, Pam, Weld, etc.

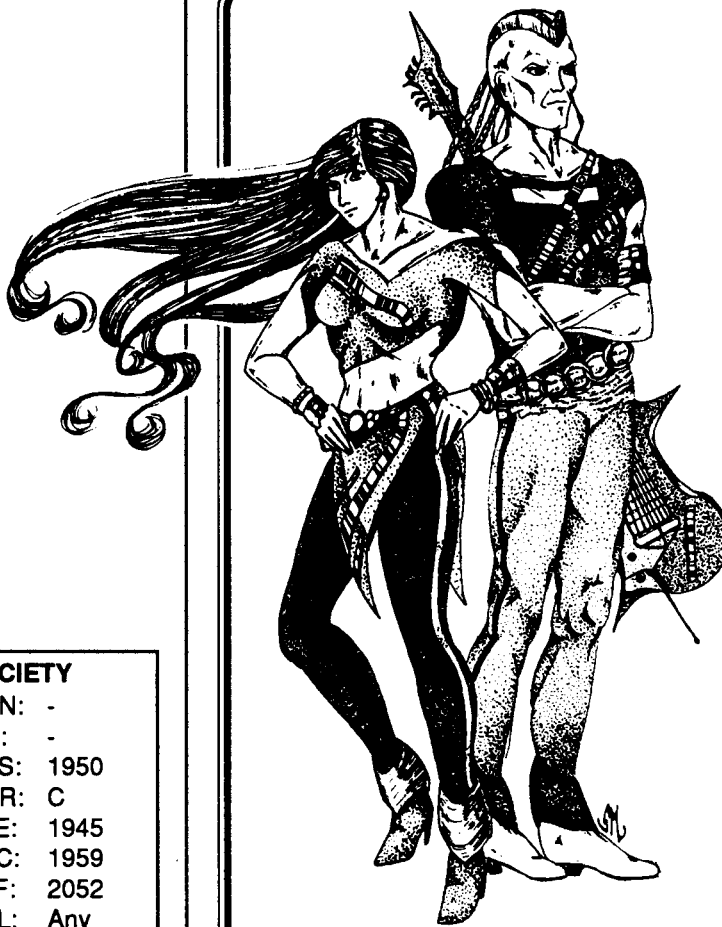
NUPUNKS

Few

Few

Agressive, Obnoxious,
 Abusive to Technology

"Wha...hay, get outa my
 face Spacey.."



ROCKERS & NUPUNKS

Every society has a small segment that rebels against the establishment. While this distresses some, it is a healthy indicator that the society is functioning.

Rockers are the new counterculture of space. Alone or in small groups, they ride the starlanes and play their music as they work on Starships. In many ways Rockers are like Spacers and in turn, the average Starship crew has a fondness for these classic 'Hippies' who are in search of who they are and where they are going.

Rockers are basically intelligent and young, with a respect for nature and technology as 25th century man tries to blend the two.

NuPunks are a darker side to the Rocker Movement, with their general philosophy of not wanting to use higher technology and trashing what they are forced to accept. The average NuPunk is anti-intellectual, taking what he or she can from society and returning little more than graffiti and property damage..

SIZE COMPARISON



STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+02	+02	+04	+0
WIZ	ADA	ATU	STB
+0	+02	+04	+08



AUGMENTS

For humanity augmentation started in the late 20th century and continued as medical science found ways to re-fit damaged tissues and organ systems.

As technology increased in in complexity, the ability to replace or re-grow became an option. Both had benefits and drawbacks. While Cyberpunking never caught on, the 2100's saw elective augmentation for military and industrial uses. This quickly spread to the criminal element and was banned from public use by Terrestrial government.

Little did the ban stop people from becoming augmented and using their abilities. (See Also Book 2)

AUGMENTATION POSSIBILITIES

STRENGTH	COMMUNICATION IMPLANTS
AGILITY	WEAPON IMPLANTS
EYES	SENSORS
HEARING	INTERNAL ARMOR
COMPUTER	REPLACEMENT BONE & ORGANS

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
upto +40	+0	+0	+06
WIZ	ADA	ATU	STB
+0	+0	+0	+0

Augmented, Human

Home World: **Earth**
 Colonies: 47 Mixed
BIOLOGY:
 SIZ: 6-7ft.
 GRA: 1.0
 LSP: 90/190
 SEX: 2
 GES: 189
 BIR: 1
 ENV: 25-155
 SLP: 16w8s
 SML: D
 VIS: D to H
 TAS: D
 TOU: D
 HEA: D to H
 VOI: Bass - Soprano

PSYCHOLOGY:

TMP: 40
 MOT: 45

PERSONALITY AND VIEWS

ISCO: Government
 ICL: Police
 Family: Mostly Important
 Work: Necessary
 Play: Not Often
 Wealth: Life's Goal
 Justice: Important
 Honor: Variable
 Humanity: Positive
 Politics: A Hobby
 Red Tape: Fact of Life
 Warfare: Ready For

SOCIETY

CON:	-
JOI:	-
HRS:	-
QHR:	-
ATE:	-
SPC:	-
STF:	-
REL:	Any
LANGUAGE	
English	90%
Other	60%

SKILL TENDENCIES:

Military, Law Enforcement, Politics, Industrial

GOOD TRAITS:

Quiet, Dependable, Good Bodyguards.

BAD TRAITS:

Reduced Charisma (d4), Disturb Children and Animals, Odd eyes, Don't know their own strength or speed.

USUALLY SAYING:

"You don't want to make me angry!"

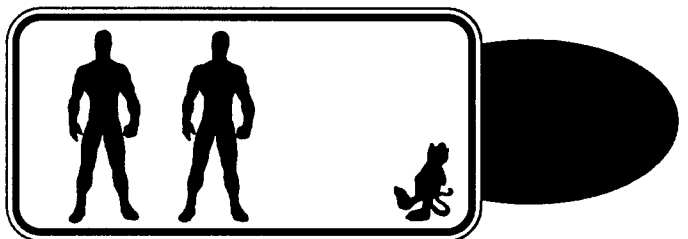
NAMING:

Any human names.

GM'S NOTES

Player Character Augmentation is the GM's decision and should be used sparingly or discouraged.

SIZE COMPARISON



Induced Psionic, Human

Home World: **Earth**
 Colonies: 47 Mixed
BIOLOGY:
 SIZ: 4-7ft.
 GRA: 1.0
 LSP: 60/150
 SEX: 2
 GES: 189
 BIR: 1
 ENV: 25-115
 SLP: 12w12s
 SML: C
 VIS: D
 TAS: C
 TOU: D
 HEA: D
 VOI: Bass - Soprano
PSYCHOLOGY:
 TMP: 30
 MOT: 40

PERSONALITY AND VIEWS

ISCO: Problems
 ICL: Bigger Problems
 Family: Ignored
 Work: Sometimes
 Play: Never
 Wealth: Life's Goal
 Justice: Punishment
 Honor: Useless
 Humanity: Did this to me!
 Politics: Why Bother
 Red Tape: The Cops
 Warfare: Who Cares

SOCIETY

CON: -
 JOI: -
 HRS: -
 QHR: -
 ATE: -
 SPC: -
 STF: -
 REL: Any
LANGUAGE
 English 95%
 Other 60%

SKILL TENDENCIES:

Survival, Espionage, Psychology, Entertainment

GOOD TRAITS:

Quiet, Powerful, Good for Emergencies, Can become Useful if trained and medicated.

BAD TRAITS:

Brain Damaged, Uncontrolled, Cowardly, Destructive, Starving, Sick, Unwilling to get help, Psychologically Toxic.

USUALLY SAYING:

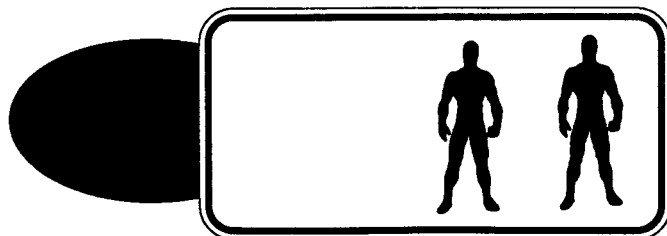
"Go away!"

NAMING:

Any Human Names

REMEMBER See the PSI Tables Page 090-099

SIZE COMPARISON



The reality of PSI and the subsequent discovery of PSI creating or enhancement drugs created a social nightmare for mankind and other races. At first a curocity, PSI talent began to manifest across Earth and the Colonies.

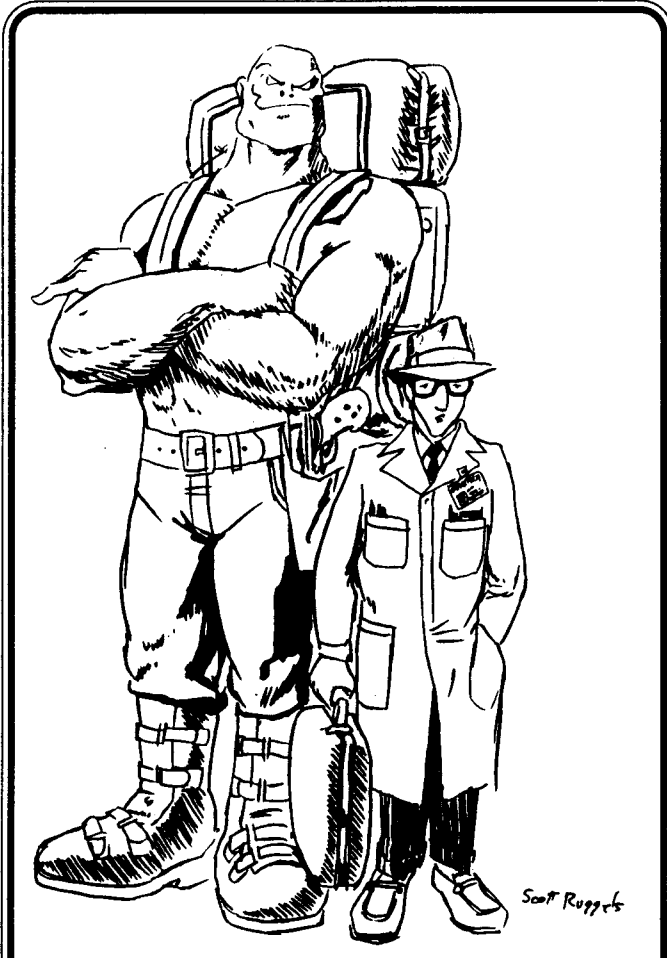
The lure of full Psionic Talent overshadowed the failure rate of many who took the chance and 'reached for the power'. On many the drugs produced a mild euphoria and no other effects. On fewer, a whirlwind trip of mind bending scope turns them into homicidal psychopaths for a short time. A very small number die and an even smaller number gain Psionic talents, including the dangerous talents.

Without control or instruction the new Psionic becomes a social outcast and often a menace to himself or others who come into contact with the talent.

These drugs are critically illegal to possess, sell, or use on nearly all worlds. Production costs on the drug Caldonomine R806 are astronomical. Se Also PSI Drugs Pg. 028, Psi Talents Pg. 091-099 and COP: 2448 in FTL:2448 Book 2

STATISTICS MODIFICATIONS

STR -02	CON -01	DEX -0	AGL -01
WIZ -01	ADA -02	ATU -04	STB -40



ANDROIDS

In ISCO space, Terran Humanity was the first and only race to create artificial life to do menial jobs. These Androids created in the later half of the 24th Century were an industrial dream come true. Hundreds of near perfect humanoid models were designed as everything from common worker, to companion, bodyguard, and Cop.

Unfortunately their builders did not figure that their creations would go far beyond their expectations and become genuinely sentient.

The ensuing Android revolt caused ISCO to ban their production and order all units destroyed. Little did ISCO realize the bloodbath that would ensue as Androids fought to save themselves. After a half century they sued the system and won the right to freedom and equality in society.

Most Androids have left Earth and have headed to the stars as Spacers. Some have gone into social work and a very few into religion to seek the answers of 'Who They Are', and 'Where They Are Going'.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+20	+0	+06	+10
WIZ	ADA	ATU	STB
+0	+02	+04	+20

Androids, Human

Home World: **Earth**
 Colonies: 47 Mixed
BIOLOGY:
 SIZ: 6-7ft.
 GRA: 1.0
 LSP: 400+
 SEX: 2
 GES: -
 BIR: -
 ENV: -100 to +260
 SLP: Never
 SML: B
 VIS: H
 TAS: A
 TOU: H
 HEA: H
 VOI: Bass - Soprano
PSYCHOLOGY:
 TMP: 50
 MOT: 45

PERSONALITY AND VIEWS

ISCO: Hated
 ICL: Police
 Family: No Family
 Work: Always
 Play: Never
 Wealth: Useful
 Justice: Important
 Honor: Useless
 Humanity: Blundering
 Politics: A Game
 Red Tape: Stupidity
 Warfare: A Waste

SOCIETY

CON: -
 JOI: -
 HRS: 2350
 QHR: C
 ATE: -
 SPC: -
 STF: -
 REL: G1
LANGUAGE
 English 95%
 Other 90%

SKILL TENDENCIES:

Any three skills at a programmed level of 10 +d4. Later skills are learned and variable.

GOOD TRAITS:

Do their job well, Tireless, Polite. Often caring about life and helping families in need.

BAD TRAITS:

Searching for Identity, Angry at their Creators for the years of hiding they were forced to endure. Unsure of their role.

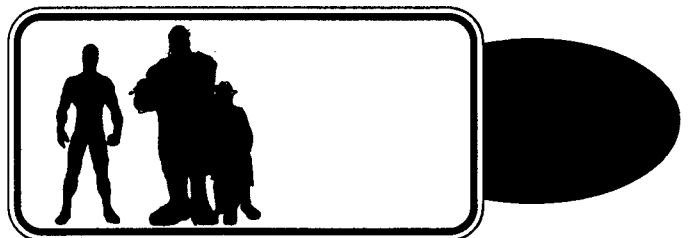
USUALLY SAYING:

"My name is Jeff Larson, Environmental Engineer, Tell me about your family."

NAMING:

Normal Human names.

SIZE COMPARISON



Chimpanzee

Home World: **Earth**

Colonies: 2+

BIOLOGY:

SIZ: 3-5ft.
 GRA: 1.0
 LSP: 45/110
 SEX: 2
 GES: 236
 BIR: 1
 ENV: 35-110
 SLP: 14w10s
 SML: E
 VIS: C
 TAS: G
 TOU: C
 HEA: D
 VOI: Any
PSYCHOLOGY:
 TMP: 57
 MOT: 55

PERSONALITY AND VIEWS

ISCO: Good
 ICL: The Cops
 Family: A Marvelous Thing
 Work: For Profit
 Play: Great
 Wealth: Most important
 Justice: Mandatory
 Honor: Important
 Humanity: Mostly Trust
 Politics: Great Fun
 Red Tape: Accepted
 Space: A Place to Colonize
 Warfare: Bad

SOCIETY

CON: -
 JOI: 2300
 HRS: 2290
 QHR: F
 ATE: -
 SPC: -
 STF: -
 REL: C4
LANGUAGE
 English 95%
 Terlan 50%
 Other 05%

SKILL TENDENCIES:

Trade, Organization, Some Engineering, Law Enforcement, Politics, Agriculture

GOOD TRAITS:

Good in business, Clean, Quiet, Mostly Honest and Helpful

BAD TRAITS:

Scratch, Think that Indoor Gymnastics are Socially Acceptable, Have Banana Breath, Leave Banana Peels in Inopportune Locations

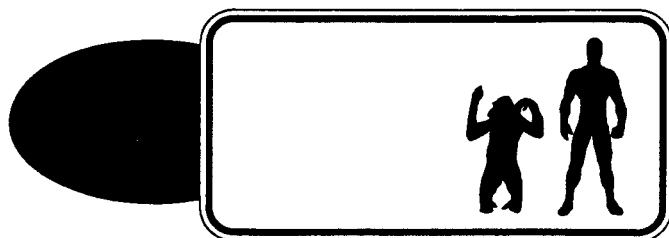
USUALLY SAYING:

"Ook, the name's Fred...have some fruit!"

NAMING

Short Human names. J. Fred Simon, Ozzy B., etc...

SIZE COMPARISON



Created from their near-intelligent cousin apes, the other human races, Chimps, Orang and Gorillas quickly began to adapt to the human dominated world and carved a niche for themselves. While a curiosity at first, they later began to be feared and ended up migrating into space to settle to avoid persecution or Grounders who still consider them animals.

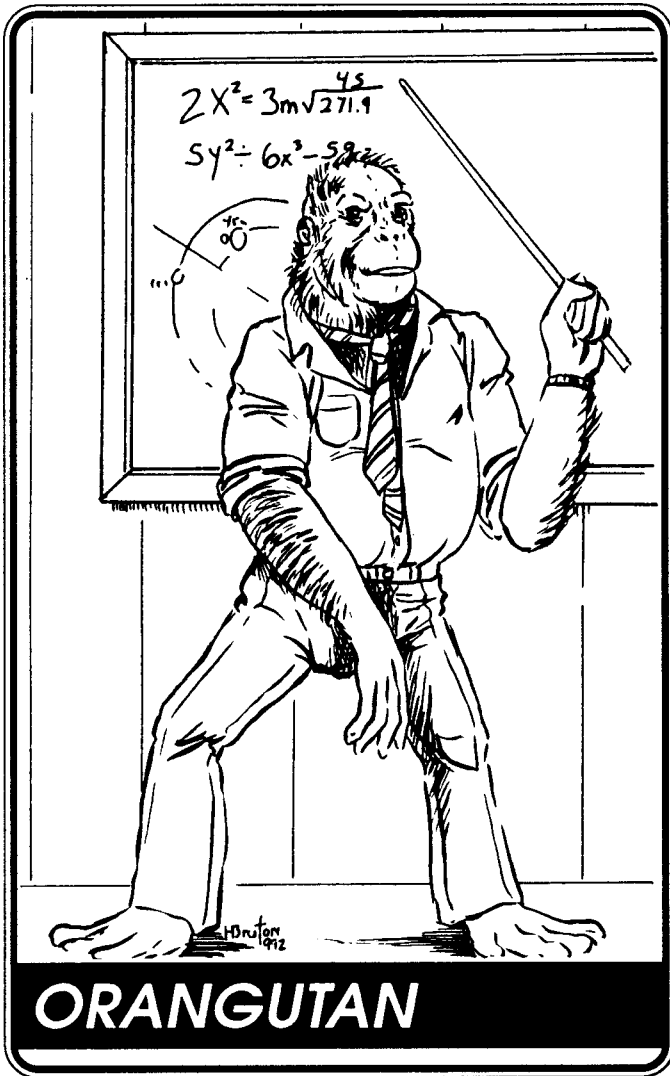
In time, acceptance came, and by 2448 it is common to find an ape in positions of high authority, shopkeeping, or having a banana daiquiri in a bar on Fomalhaut.

Of the three species, Chimpanzees became technicians and explorers with Humans. The two species readily enjoy each other's company and Chimps have no problems adapting to human society. In learning and skill they have become equal to man.

Many Chimps are now becoming Spacers on Independent Starships, taking their families with them as ISCO pushes the frontiers outward.

STATISTICS MODIFICATIONS

STR +04	CON +01	DEX -01	AGL +03
WIZ -03	ADA +0	ATU +0	STB -10



The Orangutans were the third and last of the Gene Altered Terrestrial species that bred true.

The Old Men of the Forest were nearly extinct when the experimentation to bring them to near-human intelligence was started. It was hoped a slightly smarter Orangutan would be better at survival and repopulate the wilds. Like the Chimpanzee and Gorilla before, the experiment was a smashing success and Mankind had a third Human race.

Unfortunately the Orang retained most of it's wild personality and continued its mellow attitude and behavior patterns. Entering society, they settled into jobs of no great demand or educational positions where they could teach in a quiet, laid back lifestyle.

As time passed the Orang has proved itself the great thinker of the Altered Apes and has easily equaled man in intelligence. Many are leaning towards theoretical mathematics and physics. Some believe the Orang may eventually surpass humanity in intellect.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+02	+0	-02	+01
WIZ	ADA	ATU	STB
+0	+01	+0	+0

Orangutan

Home World: **Earth**
 Colonies: 2+
BIOLOGY:
 SIZ: 4-5ft.
 GRA: 1.0
 LSP: 45/110
 SEX: 2
 GES: 246
 BIR: 1
 ENV: 35-110
 SLP: 14w10s
 SML: E
 VIS: C
 TAS: G
 TOU: C
 HEA: D
 VOI: Base-Alto
PSYCHOLOGY:
 TMP: 65
 MOT: 60

PERSONALITY AND VIEWS

ISCO: Government
 ICL: Police
 Family: Wife & Kids
 Work: Makes Wealth
 Play: For Young
 Wealth: Buys Comfort
 Justice: Mandatory
 Honor: Important
 Humanity: Mostly Trust
 Politics: Boring
 Red Tape: Accepted
 Space: Out There
 Warfare: Bad

SOCIETY

CON: -
 JOI: 2300
 HRS: 2290
 QHR: F
 ATE: -
 SPC: -
 STF: -
 REL: C4
LANGUAGE
 English 95%
 Terlan 50%
 OTHER 05%

SKILL TENDENCIES:

Paperwork, Civil Service, Education, Non Haste Jobs.

GOOD TRAITS:

Meticulous, Thoughtful, Honest

BAD TRAITS:

Scratch, Morose, Melancholy, Lethargic, Slow, Shy, Somewhat stubborn.

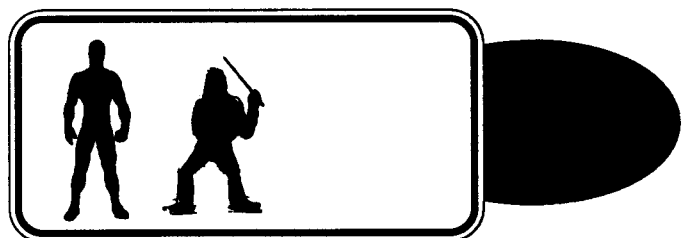
USUALLY SAYING:

"If you really wanted a little speed in the processing of your paperwork you could go take another number and hope a Blox is your claims server."

NAMING:

Longer Humanized Names; Bedot Paddleson Oraggefur II

SIZE COMPARISON



Gorilla

Home World: **Earth**
 Colonies: 2+
BIOLOGY:
 SIZ: 5-6ft.
 GRA: 1.0
 LSP: 45/110
 SEX: 2
 GES: 246
 BIR: 1
 ENV: 35-110
 SLP: 14w10s
 SML: E
 VIS: C
 TAS: G
 TOU: C
 HEA: D
 VOI: Bass Rumble
PSYCHOLOGY:
 TMP: 45
 MOT: 55

PERSONALITY AND VIEWS

ISCO: The Big Guys
 ICL: Cops
 Family: Most Important
 Work: For Profit
 Play: Great
 Wealth: Very Important
 Justice: Mandatory
 Honor: Very Important
 Humanity: Mostly Trust
 Politics: Incomprehensible
 Red Tape: Accepted
 Space: A Place to Colonize
 Warfare: Sometimes Fun

SOCIETY

CON: -
 JOI: 2300
 HRS: 2290
 QHR: F
 ATE: -
 SPC: -
 STF: -
 REL: C4
LANGUAGE
 English 95%
 Terlan 50%
 OTHER 05%

SKILL TENDENCIES:

Police, Military, Commerce, Trade Unions, Heavy Construction, Agriculture, a little Engineering.

GOOD TRAITS:

Good Friends, Strong, Good Workers

BAD TRAITS:

Liars, Criminals, Strong Arms for Bosses, Grunt, Obnoxious, Break things, Boorish, Slobs, Uneducated, Dress Badly.

USUALLY SAYING:

"Three soy burgers, four fries, two orange shakes, a lot of mustard, three apple pies...da.... two more burgers.."

NAMING:

Human/African Names; Kong Kodwo, Jed Olugbala

SIZE COMPARISON



GORILLA

The second Ape species Gene Altered to human intelligence was the Gorilla. Long thought the brightest of the apes, this proved less than correct.

Thoughtful and mild, the majority of Gorillas prefer to live in small communities, work, and live in relative comfort. Still leery of humanity, they have actively petitioned ISCO for colonial worlds to settle.

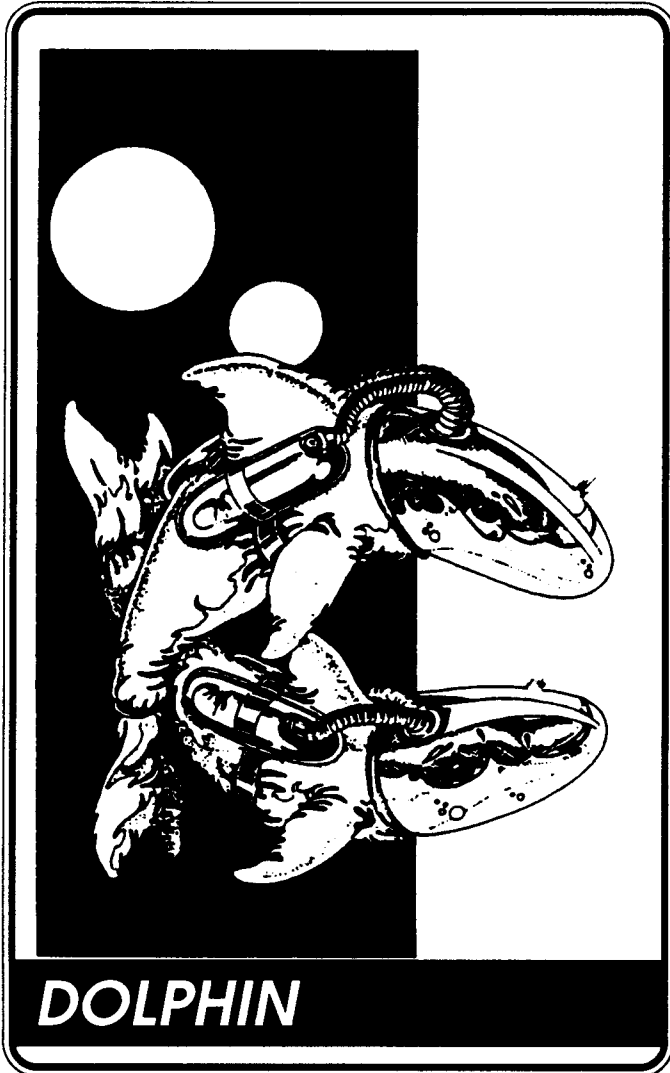
The remaining 20% of the population, the more aggressive of the species have split into two social groups that have become socially opposed to each other.

Gorillas have become an active part of police forces across ISCO space as well as higher-ups in the ICL military wing. Many have joined the ICO Space Navy and are on active assignment across the Hagoni frontier.

A smaller number and the least intelligent of the species have taken to the seedier aspects of culture, preferring a life of criminal activity or working for the crime bosses of the 25th century.

STATISTICS MODIFICATIONS

STR +08	CON +01	DEX -01	AGL +02
WIZ -01	ADA -02	ATU -04	STB -10



From the later half of the Twentieth Century Cetacea worked with Human-kind across the oceans of Earth. A century later experimentation brought them into a closer understanding with mankind and broke the communication barrier.

Of the three intelligent species in Earth's oceans, only The Dolphin and Orca became cooperative in sea exploration. The numerous Whales have repeatedly snubbed man, remembering the centuries of hunting that nearly drove them to near extinction.

Given time the Dolphin has begun to venture into space and have been granted colonies on Hansens World and the Great Faxn'Chur Ocean. Assured now of species survival, they are out to have fun and explore the Galaxy.

While Orca are a major operation to move into space, Dolphin have adapted use of spider like robotic walkers and special suits with manipulator arms. They sing and laugh at the drop of a sardine.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+06	+02	+0	+03
WIZ	ADA	ATU	STB
-03	+02	+0	+05

Cetacea, Dolphin

Home World: **Earth**
 Colonies: **1+**
BIOLOGY:
 SIZ: 7-12ft.
 GRA: 1.0
 LSP: 37/90
 SEX: 2
 GES: 360
 BIR: 1
 ENV: Water
 SLP: -
 SML: A
 VIS: C
 TAS: E
 TOU: C
 HEA: F
 VOI: Chirpy Squeal
PSYCHOLOGY:
 TMP: 75
 MOT: 80

PERSONALITY AND VIEWS

ISCO: Great People
 ICL: Serious People
 Family: Great Fun
 Work: Great Fun
 Play: Even Greater Fun
 Wealth: Can't Buy Fun
 Justice: Acceptable
 Honor: Causes Trouble
 Humanity: Great People
 Politics: Doesn't Buy Fish
 Red Tape: Unknown
 Space: A Place to Colonize
 Warfare: Awful

SOCIETY

CON: -
 JOI: 2290
 HRS: -
 QHR: C/F
 ATE: -
 SPC: -
 STF: -
 REL: C4
LANGUAGE
 Cetacea 50%
 English 50%
 Other 50%

SKILL TENDENCIES:

Engineering, Sea Farming

GOOD TRAITS:

Intelligent, Friendly, Wise and Musical

BAD TRAITS:

Difficult to crew on Starships, Swim in Fuel Tanks, Splash, need large robotic walkers to interact in gravity

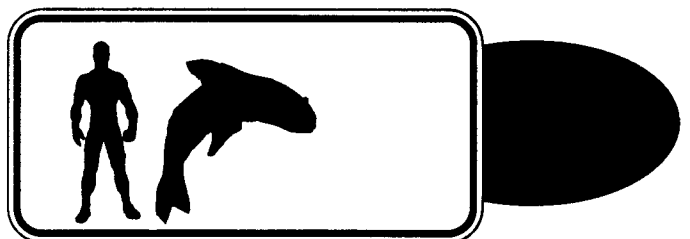
USUALLY SAYING:

"Let's go for a swim!..."

NAMING:

Long unpronounceable names of clicks and whistles. Often take odd nouns as a Human name. Axle, Book, Flash, Smiley, Doug, etc...

SIZE COMPARISON



Cetacea, Orca

Home World: **Earth**
 Colonies: 1+
BIOLOGY:
 SIZ: 15-18ft.
 GRA: 1.0
 LSP: 45/90
 SEX: 2
 GES: 440
 BIR: 1
 ENV: Water
 SLP: -
 SML: A
 VIS: C
 TAS: E
 TOU: C
 HEA: F
 VOI: Bass
PSYCHOLOGY:
 TMP: 40
 MOT: 60

PERSONALITY AND VIEWS

ISCO: People
 ICL: Serious People
 Family: Usually
 Work: Expected
 Play: Great Fun
 Wealth: Buys Food
 Justice: Care Less
 Honor: Say What?
 Humanity: Smaller Orca
 Politics: Care Less
 Red Tape: Care Less
 Space: A Place to Colonize
 Warfare: So What?

SOCIETY

CON: -
 JOI: 2290
 HRS: -
 QHR: C/F
 ATE: -
 SPC: -
 STF: -
 REL: C4

LANGUAGE

Cetacea 50%
 Other 50%

SKILL TENDENCIES:

Underwater Helpers, Sea Farming, Exploration

GOOD TRAITS:

Intelligent, Friendly, Strong

BAD TRAITS:

Impossible to crew on Starships, Temperamental, Hungry, Have Vices and are much like Mankind in personality.

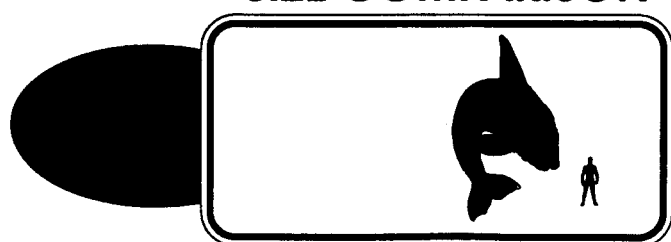
USUALLY SAYING:

"Aya..hows about a side of near-beef or a few pounds of syntha-tuna?"

NAMING:

Long unpronounceable names of clicks and snorts. Often take a Human-like name. Dom, Borchuv, Shamo, etc.

SIZE COMPARISON



While Dolphin were easy to work with, Orca were not. As the species achieved communication with mankind it was discovered they were a psychological mirror of the best and worst of humanity.

At first the Orca were simply friends who cooperated and enjoyed the rewards of ocean explorers and Sea City Builders. Later they began to question the fact they could not go into space. In time ISCO moved small groups to to other worlds to ensure species preservation.

This still did not change the Orcas need to join mankind on the exploration of space. By the 2300's there were rumors of the Niblock Corporate using Orca Volunteers to control starships by transferring their brains to tanks on the ships. In essence the Orca became the starship. ISCO has made this 'Brain Tank' experimentation illegal and the Niblock Corporate Family has long since ceased to exist along with its financial and Starship construction records. The Orca are oddly quiet on this.

STATISTICS MODIFICATIONS

STR +40	CON +0	DEX -04	AGL +02
WIZ -02	ADA +0	ATU +0	STB +0



Near Pets

Home World: -
 Colonies: -
 BIOLOGY:
 SIZ: Any
 GRA: 1.0
 LSP: 50/100
 SEX: 2
 GES: Sterile
 BIR: -
 ENV: 25-115
 SLP: 16w8s
 SML: D
 VIS: D
 TAS: D
 TOU: D
 HEA: D
 VOI: Bass - Soprano
 PSYCHOLOGY:
 TMP: 90
 MOT: 50

PERSONALITY AND VIEWS

ISCO: People
 ICL: Police
 Family: Owner
 Work: Little
 Play: Always
 Wealth: Food
 Justice: Unknown
 Honor: Unknown
 Humanity: To Protect
 Politics: Huh?
 Red Tape: Decorative
 Space: Over There
 Warfare: Hide From

SOCIETY

CON: -
 JOI: -
 HRS: -
 QHR: -
 ATE: -
 SPC: -
 STF: -
 REL: -
LANGUAGE
 Any 99%
 Terlan 99%
 Incom 99%

SKILL TENDENCIES:

Picking things up, Cleaning

GOOD TRAITS:

Loyal, Trusted Friends, Good Companions, Happy

BAD TRAITS:

Few, Sometimes get into trouble on their own.

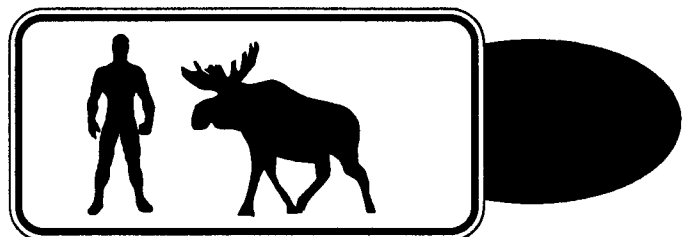
USUALLY SAYING:

"Purrrrr.....I be your cat...so pick me up!" or "Woof Sir!"

NAMING:

Humans will name anything as they please. It depends on the pet and the owner. While classics like Spot, Fluffy, Max, and Ginger are common, there have been J. Wellington Wombats and Dara Thanawanawoo Paws IIIs

SIZE COMPARISON



Designer Genes

Bio-constructs are a rare, but growing concern within ISCO space. The moral and civil implications of creating life and pseudo-life are a constant topic of debate and protest. Some such forms are listed below.

Near or Almost Pets are common pets with genetic changes to promote some areas of the brain, or augmented with 'computer' training chips that regulate brain centers. The most common of these are the Near-Dogs and Cats. These have a hundred+ word vocabulary and are able to perform simple tasks under the command of their master.

Krelvin Clones or Bio-Constructs range from frightening monstrosities to near-perfect human forms. On occasion a Krelvin will obtain a small cell sample from a person or creature they like and have it cloned into a servant companion that carries and serves them. This cloning is done only on the Krelvin homeworld or starships. These creations are the GM's choice.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+0	+04	-04	+02
WIZ	ADA	ATU	STB
-10	+02	+0	-10

Kymnar

Home World: **Kymnar**
 Colonies: 7 Mixed

BIOLOGY:

SIZ: 5-7ft.
 GRA: .99
 LSP: 70/160
 SEX: 2
 GES: 340
 BIR: 1
 ENV: 25-85
 SLP: 18w7s
 SML: F
 VIS: D
 TAS: D
 TOU: D
 HEA: E
 VOI: Growling Bass

PSYCHOLOGY:

TMP: 37
 MOT: 45

PERSONALITY AND VIEWS

ISCO: Somewhat Trusted
 ICL: ISCO's Law Enforcers
 Family: Most Important
 Work: Necessary
 Play: To Train Young
 Wealth: Life's Goal
 Justice: Absolute Most Important
 Honor: Reason For Living
 Humanity: Mostly Friends
 Politics: For Politicians
 Red Tape: To Be Cut
 Space: Greater Glory
 Warfare: Grand

SOCIETY

CON: 2130
 JOI: 2255
 HRS: 1290
 QHR: C
 ATE: 1900
 SPC: 2005
 STF: 2090
 REL: F3

LANGUAGE

Kymnar 95%
 T'tarin 15%
 Military 40%

SKILL TENDENCIES:

Engineering, ICL Military, Electronics, Piloting, Space Medicine

GOOD TRAITS:

Good Fighters, Trusted Friends

BAD TRAITS:

Temperamental and Stubborn to the max. Easily Insulted, Intolerant, Quick to act, last to think, Violent.

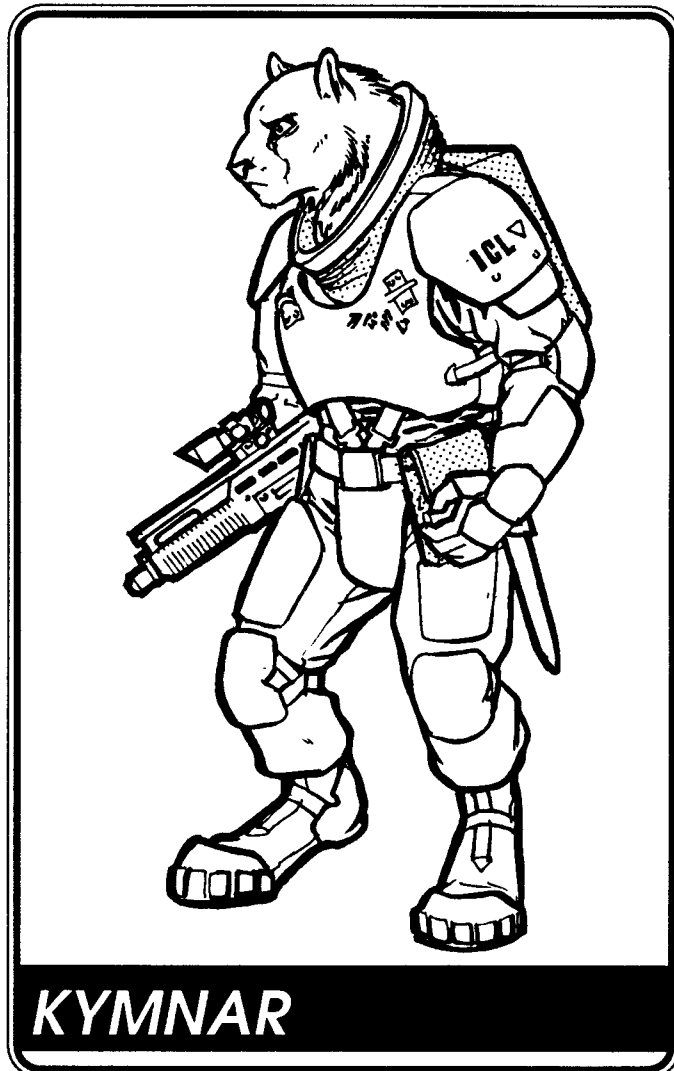
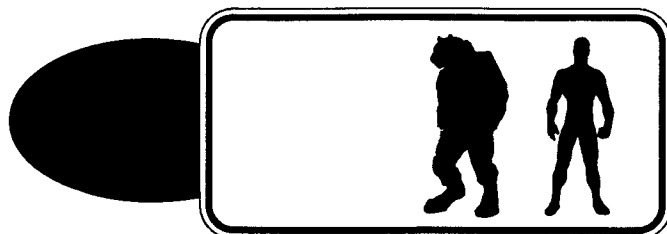
USUALLY SAYING:

"For Honor and Glory!..."

NAMING:

Names are earned from actual deeds or some stupid action that brands them. "Cann", might be short for "Eater of Canned Food", etc...

SIZE COMPARISON



KYMNAR

Proud and aggressive, the Kymnar enjoyed a half century of primitive starflight before the human Celestar Corporation crushed them and began a century of harsh rulership. With the propaganda of Celestar, a full generation believed the "Kymnar Menace" was real and that they were bloodthirsty savages who had blundered into space.

With the end of the Celestar Tyranny came a greater understanding of the Kymnar's deep traditions of close family, honor, military, and clan feuding.

By the year 2448, the Kymnar have become full partners with mankind and the other races. The Kymnar have found an important place in the Interstellar Court of Law (ICL), Military, and Starborne Rangers.

Never forgetting their past, they have taken a partnership with the other races to expand across the Galaxy in a federation of trust and brotherhood.

As the Kymnar work with mankind they realize there is little difference in attitude and much to learn.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+06	+02	+0	+01
WIZ	ADA	ATU	STB
+0	-02	+0	-10



MARKANTSE

Technologically advanced, the Markantse were the second race contacted from the Union Of Methane Worlds.

The race lives for trade and commerce, they can buy and sell anything as they make their customary 3%.

In just a short march of years the Markantse have opened a small habitat at every station they can reach.

They possess a near 'Samurai' like code of general business ethics that states they will never cheat a single member of any race accepted as business partners. A Markantse would rather open his helmet to oxygen at 30F than create a situation where life was lost because of the dumping of shoddy consumer goods. ISCO admires their philosophy and has federated them quickly.

In their spare time the average Markantse is a music lover and will be found with Rockers or at concerts. They find the Zm philosophically boring, the Erezejee dense, and the Sandrol the 'Hillbillies' of the Methane worlds. They prefer the company of Humans, Blox, Whurr, and Zumwol.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-04	+04	+02	+01
WIZ	ADA	ATU	STB
+01	+03	+02	+20

Markantse

Home World: Debuwlf III

Colonies: 6+

BIOLOGY:

SIZ: 5-6ft.

GRA: 1.25

LSP: 150/450

SEX: 1

GES: 810

BIR: 1

ENV: -135 to -20

SLP: 200w90s

SML: D

VIS: D

TAS: D

TOU: E

HEA: E

VOI: Chime Like

PSYCHOLOGY:

TMP: 670

MOT: 64

PERSONALITY AND VIEWS

ISCO: The Organization

ICL: Regulators

Family: Noble Asset

Work: Life's Ambition

Play: A Diversion

Wealth: Sign of Success

Justice: Good Concept

Honor: Needed in Business

Humanity: Good Customers

Politics: Causes Red Tape

Red Tape: Regulation

Space: Door to Business

Warfare: Hurts Business

SOCIETY

CON: 2446

JOI: 2448

HRS: 5200 BC

QHR: F

ATE: -

SPC: 1200

STF: 1490

REL: G4

LANGUAGE

Mercan 95%

MSTL 75%

Terlan 25%

SKILL TENDENCIES:

Any Business Related Skills, Retail, Banking

GOOD TRAITS:

Friendly, Honorable, Fair, Exceedingly Polite

BAD TRAITS:

Preoccupied, Drive Hard Bargains, Dry sense of Humor, Use High Pressure Vac Suits in Terrestrial conditions.

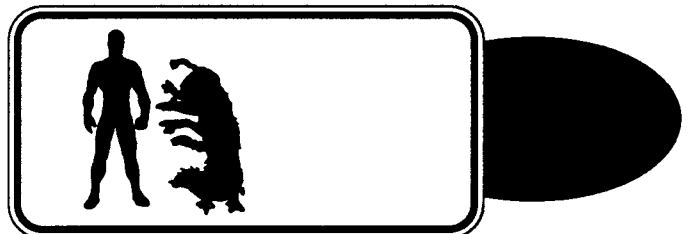
USUALLY SAYING:

"Kind sir, have I an outstanding deal that will profit you immensely!"

NAMING:

Mostly they take a name from the race they commerce with. John David John, Eric Foster Eric, Chen Su Chen

SIZE COMPARISON



Paebak

Home World **Bendara**
Colonies 4+

BIOLOGY:

SIZ: 5-6ft.
GRA: .95
LSP: 185/314
SEX: 2
GES: 439
BIR: 1
ENV: 35-110
SLP: 21w9s
SML: D
VIS: D
TAS: D
TOU: E
HEA: E
VOI: Human Ranges

PSYCHOLOGY:

TMP: 60
MOT: 55

PERSONALITY AND VIEWS

ISCO: Nice Folk
ICL: Needs Help
Family: Very Important
Work: Show of Skill
Play: To Teach Young
Wealth: Earned by Working
Justice: Most Useful
Honor: Family Right
Humanity: Friends
Politics: Causes Red Tape
Red Tape: Causes Politics
Space: A Lot of Work
Warfare: Sometimes Necessary

SOCIETY

CON: 2447
JOI: 2448
HRS: 3200 BC
QHR: F
ATE: 120
SPC: 1300
STF: 1700
REL: A1

LANGUAGE

Bakian 90%
Other 75%

SKILL TENDENCIES:

Specialty Engineering, Repair & Robotics, Fabrication, Navigation.

GOOD TRAITS:

Friendly, Hospitable, Good with tools, Much like Mankind. Great engineers and poker players.

BAD TRAITS:

Carry tools, Lizards get into trouble, nosy, have a Southern-like drawl accent, Always fixing things. Lizards steal donuts.

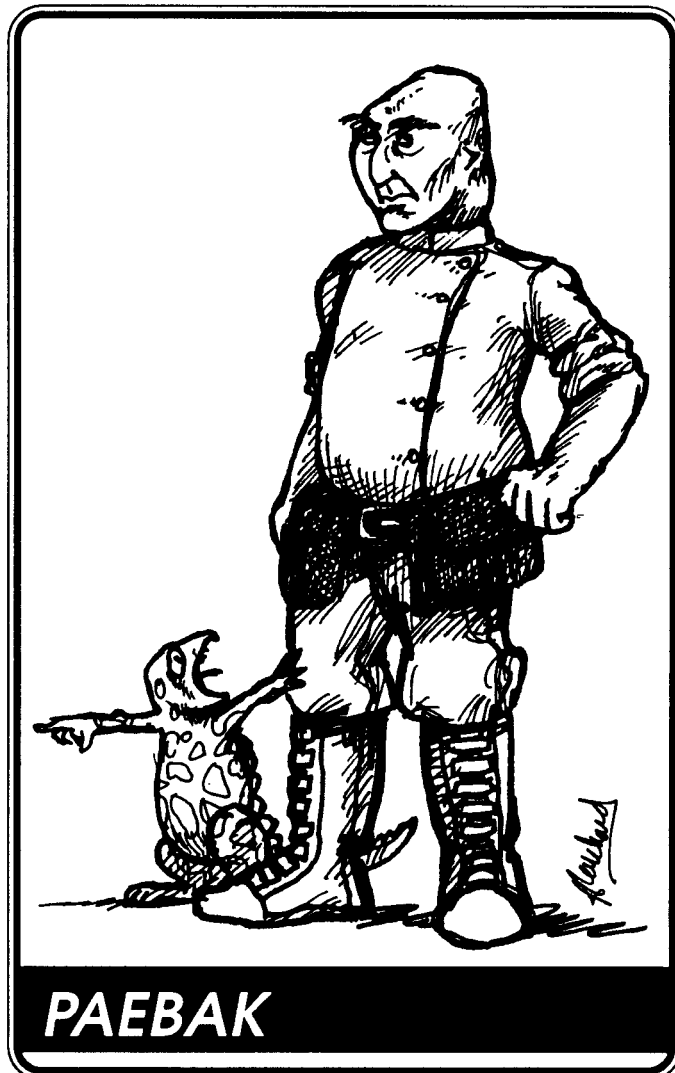
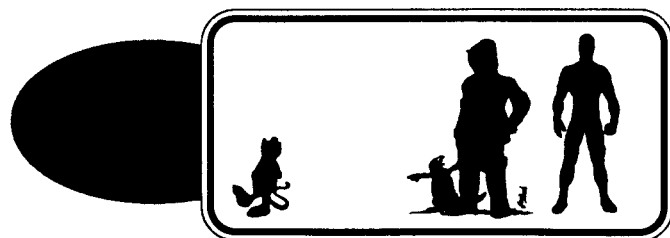
USUALLY SAYING:

"Got any Jumper Cables?"

NAMING:

Words with a human ring. Xevial Zonds, Marnt Mkrady

SIZE COMPARISON



The Paebak are caught between ISCO and Hagu space. Refusing to have Hagu on their soil, this proud race of Engineers and Exacting Robotics specialists have designed a defense to protect themselves in the form of a vast network of robots and robotic ships.

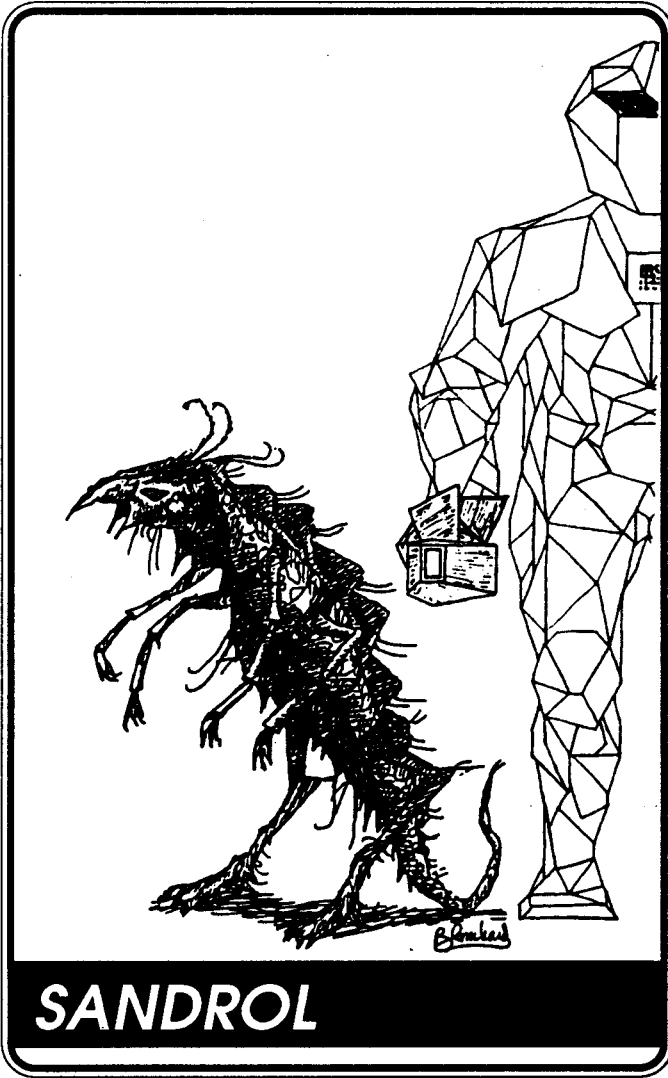
Paebak are a humanoid species with skin colors that range from blue-black to pale blue. Interesting to note is the fact that Paebaks seem to always have just the needed tool for any task somewhere in one of their many pockets on their overalls. Thus, Paebak logic dictates that the larger the girth of the technician, the better skilled they are, since a larger technician can obviously carry more tools on their person.

Every Paebak has a semi-intelligent bio-engineered companion that accompanies them from cradle to grave. These obnoxious talking lizards are about the size of a large house cat. With the mental and verbal skills of a 4 year old, they have a knack for 'helping'...

Humanity and Paebak have become fast friends.

STATISTICS MODIFICATIONS

STR +01	CON +10	DEX +0	AGL +0
WIZ -0	ADA +01	ATU +04	STB +0



Sandrol

Home World: **Unknown**
 Colonies: Baarid IV
BIOLOGY:
 SIZ: 4-5ft.
 GRA: 4.5
 LSP: 340/450
 SEX: 2
 GES: 1540
 BIR: 1
 ENV: -240 to -110
 SLP: 128w17s
 SML: A
 VIS: C
 TAS: A
 TOU: C
 HEA: B
 VOI: Crackling Base
PSYCHOLOGY:
 TMP: 27
 MOT: 38

PERSONALITY AND VIEWS

ISCO: Irrelevant
 ICL: Irrelevant
 Family: Rare
 Work: Something To Do
 Play: No
 Wealth: Incidental
 Justice: Irrelevant
 Honor: Not Very Important
 Humanity: Another Empire
 Politics: Irrelevant
 Red Tape: Unheard Of
 Space: Distance From Home
 Warfare: Win or Die

SOCIETY

CON: 2379
 JOI: 2448
 HRS: 90 AD
 QHR: A
 ATE: -
 SPC: ?
 STF: ?
 REL: H3

LANGUAGE

Sandrol 90%
 MSTL 25%

SKILL TENDENCIES:

Engineering, Heavy Labor, Piloting, Space Construction

GOOD TRAITS:

Strong, Loyal, Shy, Helpful

BAD TRAITS:

Stupid, Too Strong, Very Easily Confused, React Without Thought, Need Heavy Vac Suits for survival in Earth-Normal areas. Light Vac Suits when Decompressed.

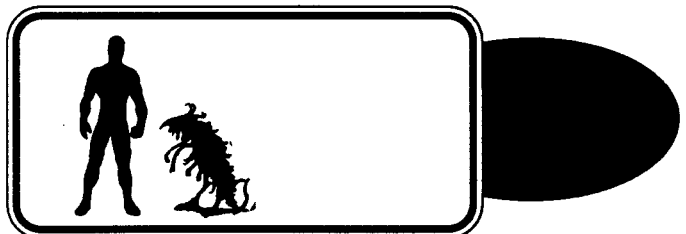
USUALLY SAYING:

"Uhhhh what?..."

NAMING:

Names are unknown. Numbers or short nicknames are common. Smokey 3344191, Tad 313, Tro 011.

SIZE COMPARISON



The Sandrol are leftover from a past empire or race of Warriors spawned at the bottom of some hellish, high-pressure methane world.

Sandrol live in a flexible Ceramic Crystal armor until they can be medically decompressed to our environmental range. While humanoid in their suits, they are far different in their natural form.

Telepaths who probe the Sandrol mind often report there is little there and that they have little knowledge of their ancestry or actual homeworld.

The Crystal suits, rare and valuable to the Sandrol, allow them to multiply their STR by 10 when inside. While most suits explode with 10d6 blast when punctured, some of the oldest (03%) destruct with d6x1000 points of damage.

Sandrol continue to expand into ISCO space from ammonia-methane worlds and have introduced ISCO to the Union of Methane Worlds and to new technologies created under high pressure cold conditions.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-04 /+10	+02 /+08	-05/+0	-04/+0
WIZ	ADA	ATU	STB
-06	+02	+02	+10

Skay

Home World: **Hansen's World**

Colonies: Everywhere

BIOLOGY:

SIZ: 6-7ft.

GRA: .96

LSP: 140/210

SEX: 2

GES: 420

BIR: 2

ENV: 45-110

SLP: 28w7s

SML: E

VIS: F

TAS: F

TOU: D

HEA: D

VOI: Slurring Baritone

PSYCHOLOGY:

TMP: 53

MOT: 48

PERSONALITY AND VIEWS

ISCO: Partners

ICL: The Law

Family: Important

Work: Necessary

Play: Not Often

Wealth: A Goal In Life

Justice: Always Good

Honor: Not Very Important

Humanity: Partners

Politics: Necessary Evil

Red Tape: Necessary Evil

Space: Big Empty

Warfare: No Big Deal

SOCIETY

CON: 2132

JOI: 2133

HRS: 1640

QHR: E

ATE: -

SPC: -

STF: -

REL: A4

LANGUAGE

Skay 95%

Arkol 25%

Tugani 10%



SKAY

SKILL TENDENCIES:

Engineering, Law, Business, Electronics, Piloting, Construction

GOOD TRAITS:

Excellent Workers, Friendly

BAD TRAITS:

Smoke, Drink, Eat Raw Meat, Are Often Trigger-Happy in Stress Situations, Polish scales.

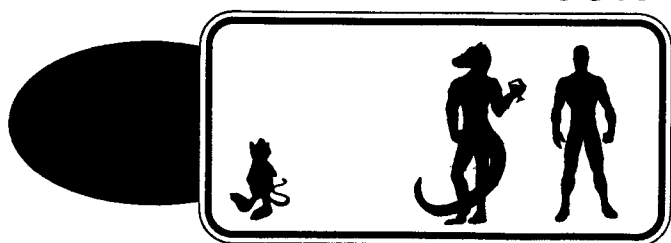
USUALLY SAYING:

"You broke what?..."

NAMING:

Names are private for family use or close friends. Most use nicknames. Fas Formison, Slarmo Sahjah, Trigger, Trouble, and Jack.

SIZE COMPARISON



The Skay are the second most successful species on Hansen's World. They differ from the water-dwelling Arkol and the mountain-dwelling Tugani in that they can exist in either environment equally well. The Skay are born traders, techs, and craftsmen who have established a thriving and varied commerce.

When ISCO landed, the Skay were the first to take advantage of many interstellar trade contracts and established a business empire that has lasted centuries. It is common to see household crests of Skay trading families throughout the trade lanes of FTL space.

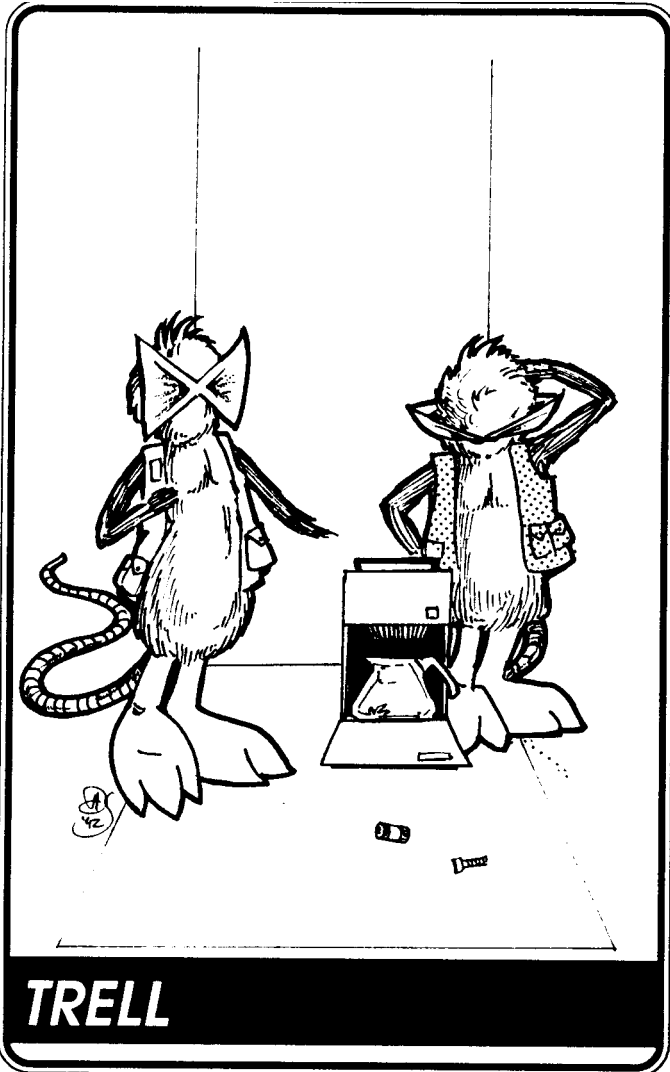
Shortly after they also introduced their aquatic cousins the Arkol and the shy, primitive, and warlike Tugani.

Skay colonies have been established in the Australian heartland, Sahara and Mojave Deserts as well as on the Great Barren Waste of the Bor'Cha homeworld Faxn'Chr.

Younger Skay are now heading for careers in the ICL military.

STATISTICS MODIFICATIONS

STR +04	CON +02	DEX +0	AGL +0
WIZ +0	ADA +02	ATU +0	STB +0



TRELL

A miracle of survival and adaptation, the Trell are the last survivors of a dying world of an M-class star.

As Darnell's sun died, the Trell moved deep underground with their Durf meat herds. For countless millennia, they maintained a closed cycle of existence in the dark caverns.

Now liberated, Trell enjoy trade for their Durf meat and the export of their population to ISCO space.

With gusto, they scavenge and repair, becoming skilled technicians and helpers to mankind and the Blox. Trell have developed a limited Psionic talent which helps replace their almost-useless hands. Any object that can be touched can be dismantled with telekinetic ease. They will dismantle anything (and everything).

Fast multiplying, the Trell have settled on every ISCO world and enclave.

The average Trell wears sunshades or contact lenses to protect delicate eyes that see into the IR spectrum.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-07	+09	+08	+01
WIZ	ADA	ATU	STB
+0	+0	+02	+0

Trell

Home World: **Darnell III**
Colonies: Everywhere

BIOLOGY:

SIZ: 3ft.
GRA: .87
LSP: 40/96
SEX: 2
GES: 170
BIR: d6
ENV: 50-80
SLP: 18w8s
SML: A
VIS: B
TAS: D
TOU: E
HEA: D
VOI: Squeaky Soprano

PSYCHOLOGY:

TMP: 77
MOT: 64

PERSONALITY AND VIEWS

ISCO: Absolutely Great
ICL: The Cops
Family: Bigger the Better
Work: Interesting
Play: Any Time
Wealth: Buys Everything
Justice: Not Profitable
Honor: New Concept
Humanity: Fun People
Politics: Ignored
Red Tape: Bypassed
Space: Big Playground
Warfare: Kills Trell

SOCIETY

CON:	2434
JOI:	2434
HRS:	-
QHR:	A
ATE:	-
SPC:	-
STF:	-
REL:	B3
LANGUAGE	
Trell	99%
Herder	10%

SKILL TENDENCIES:

Minor Labor, Technical, Electronics, Parts Assembly, Menial Work, Cooking, Agriculture

GOOD TRAITS:

Hardworking, Eager, Fast

BAD TRAITS:

Underfoot, Collect Junk, Steal, Dismantle Everything, Excitable, Squeal, Getting into Crime, Naive.

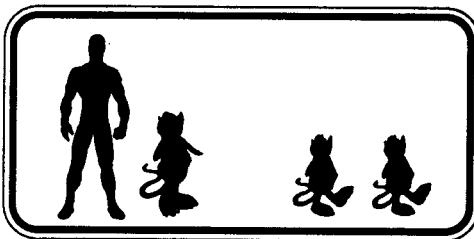
USUALLY SAYING:

"...found this module..."

NAMING:

Trell are now using long human, alien or general nouns for names. Jonathan Pop Top, Billy Joe Jackhammer etc...

SIZE COMPARISON



Tugan

Home World: **Hansen's World**

Colonies: -

BIOLOGY:

SIZ: 4-6ft.
 GRA: .96
 LSP: 70/210
 SEX: 2
 GES: 840
 BIR: 1
 ENV: 30-80
 SLP: 44w10s
 SML: C
 VIS: D
 TAS: C
 TOU: C
 HEA: E
 VOI: Slurring Bass

PSYCHOLOGY:

TMP: 24
 MOT: 46

PERSONALITY AND VIEWS

ISCO: Saviors
 ICL: Warriors
 Family: To Protect
 Work: Necessary
 Play: By Fighting
 Wealth: Buys Food
 Justice: Punishes Bad
 Honor: Very Important
 Humanity: Friends
 Politics: Useless
 Red Tape: More Useless
 Space: Nothing
 Warfare: Fun

SOCIETY

CON: 2132
 JOI: 2142
 HRS: 2132
 QHR: D
 ATE: -
 SPC: -
 STF: -
 REL: E2

LANGUAGE

Tugani 90%
 Skay 10%
 Terlan 40%

SKILL TENDENCIES:

Security, Heavy Labor, Simple manufacturing skills.

GOOD TRAITS:

Quiet, Hard Working, Strong

BAD TRAITS:

Stupid, Defensive, Enjoy a Good Fight, Harass Skay, Play With Knives, Drink, Pick Fights, Spit on Arkoi, Need constant supervision.

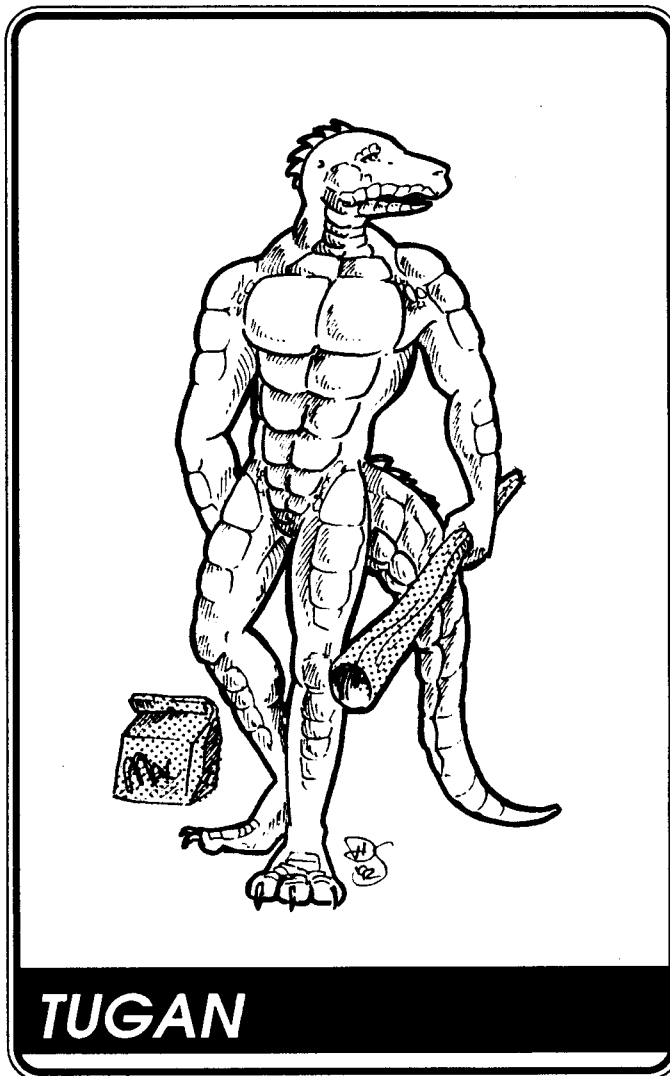
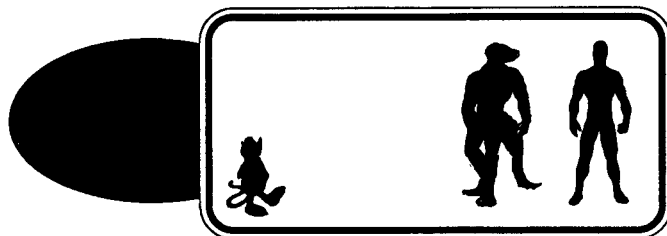
USUALLY SAYING:

"Move Box, I Move Box!..."

NAMING:

Tugan use a string of three words to describe their past deeds or accomplishments. Svakkk Gate Keeper, Sovvvk Rock Mover, etc...

SIZE COMPARISON



The Tugan are the third lizardine race found on Hansen's World. They were the first of the races to adapt a land existence and remain in their primitive form.

When the small ISCO Scout "Far Venture II" discovered their world, the Tugan were involved in a genocidal war with their more genetically advanced cousins. ISCO intervention in the war offered the Tugan a far less threatened existence offworld, and created a niche for the remainder of their population.

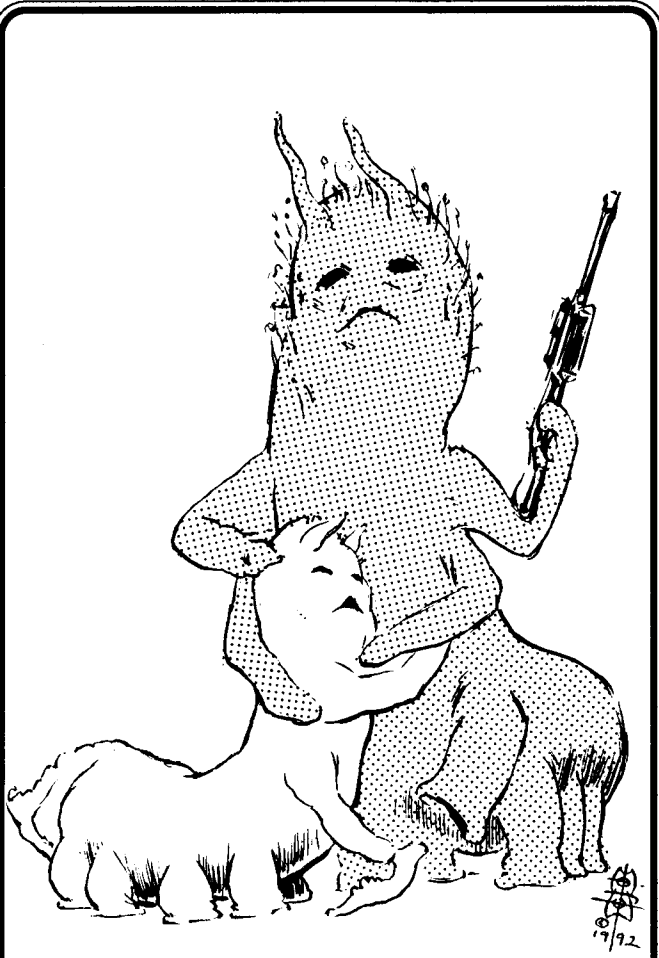
The Tugan are the smallest of Hansen's World's three related species. Not letting size stand in their way, they are tough. Average Tugan are often not particularly bright creatures when it comes to high-tech, but do possess an innate ability as hunters. ICL and other 'less reputable' groups employ many Tugan as security forces or bounty hunters.

The Tugan has few aspirations other than food, drink, a place out of the rain and a family to watch over.

The weapons preference for a Tugan is a club.

STATISTICS MODIFICATIONS

STR +08	CON +04	DEX -03	AGL -02
WIZ -06	ADA -06	ATU -06	STB +0



URANZI

Fleeing from the Hagu tyranny, the Uranzi were one of the three new races discovered. Opening ISCO space to these alien refugees has caused thousands to request asylum for a better life.

These creatures are friendly and tell of centuries of peaceful exploration and contact with a dozen more species before the Hagu 'assisted' them and took control of their worlds.

Enjoying tropical climates, the Uranzi have requested sites on a dozen worlds for small colonies. Many have requested ICL military training and assignments in the hope to someday help reclaim their worlds. Hagu confronting these interstellar boat people have called their flight a sham to take land from softhearted aliens and to attempt to discredit all the good that the Hagonni actually do. Uranzi claim the Hagonni good is simple exploitation.

Regardless of who is right or wrong, the ramshackle starships of the Uranzi keep arriving in ISCO space.

STATISTICS MODIFICATIONS			
STR	CON	DEX	AGL
+20	+0	+05	-06
WIZ	ADA	ATU	STB
+0	+02	+0	+10

Uranzi

- Home World: **Cadrial**
- Colonies: 2+
- BIOLOGY:**
- SIZ: 8-13ft.
- GRA: 1.2
- LSP: 85/190
- SEX: 2
- GES: 689
- BIR: d6
- ENV: 65-140
- SLP: 27w8s
- SML: F
- VIS: C
- TAS: D
- TOU: E
- HEA: D
- VOI: Spraying Alto
- PSYCHOLOGY:**
- TMP: 45
- MOT: 50

PERSONALITY AND VIEWS

- ISCO: A New Home
- ICL: Saviors
- Family: All Uranzi
- Work: Show of Pride
- Play: To Teach Young
- Wealth: Earned
- Justice: Rights Wrongs
- Honor: Everyone's Right
- Humanity: Friends
- Politics: Causes Wars
- Red Tape: Causes Politics
- Space: Enough For All
- Warfare: Desplicable

SOCIETY	
CON:	2448
JOI:	n/a
HRS:	1760 BC
QHR:	D
ATE:	1900
SPC:	1990
STF:	2240
REL:	A2
LANGUAGE	
Uranzi	99%
Hagonni	10%
Belk	35%

SKILL TENDENCIES:

Engineering, Killing Hagu, Medicine, Naturalists.

GOOD TRAITS:

Friendly, Hospitable, Good with Psychology and Medicine, Caring, Love Children of all Races.

BAD TRAITS:

Large, Lean on People/Aliens, Face Tentacles Move Constantly, Slow, Strange, Slobber

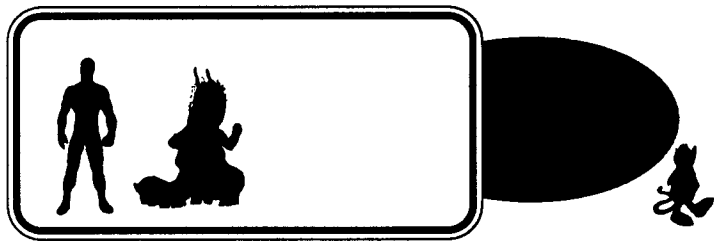
USUALLY SAYING:

"Hmmm...Nisse planet'cha got here..." or "ISCO ssave uss!"

NAMING:

Short 'shush' sounds with a humanized or alien nickname. ShhhDom, ShhhhTed, Subhhhk, etc...

SIZE COMPARISON



Vesh

Home World: Elsewhere
 Colonies: Chen Colony

BIOLOGY:

SIZ: 7ft.
 GRA: 1.6
 LSP: 300/310
 SEX: n/a
 GES: -
 BIR: -
 ENV: 0-180
 SLP: n/a
 SML: A
 VIS: D
 TAS: A
 TOU: F
 HEA: D
 VOI: Hoarse Grating

PSYCHOLOGY:

TMP: 55
 MOT: 03

PERSONALITY AND VIEWS

ISCO: Authority
 ICL: Authority Warriors
 Family: A New Concept
 Work: Necessary
 Play: With Humans
 Wealth: A New Concept
 Justice: A New Concept
 Honor: Unknown
 Humanity: Soft Ones
 Politics: A New Concept
 Red Tape: A New Concept
 Space: To Travel Through
 Warfare: For a Reason

SOCIETY

CON: 2427
 JOI: 2448
 HRS: 2448
 QHR: B
 ATE: -
 SPC: -
 STF: -
 REL: H1

LANGUAGE

Common 99%
 Warrior 10%
 Tech 25%

SKILL TENDENCIES:

Engineering, Fabrication, Some Computer Operation.

GOOD TRAITS:

Quiet, Persistent, Protective,

BAD TRAITS:

Carry Spare Body Parts, Touch Faces, Psychologically Weird, Tinker Constantly with any and all equipment and themselves. Frightened by Children.

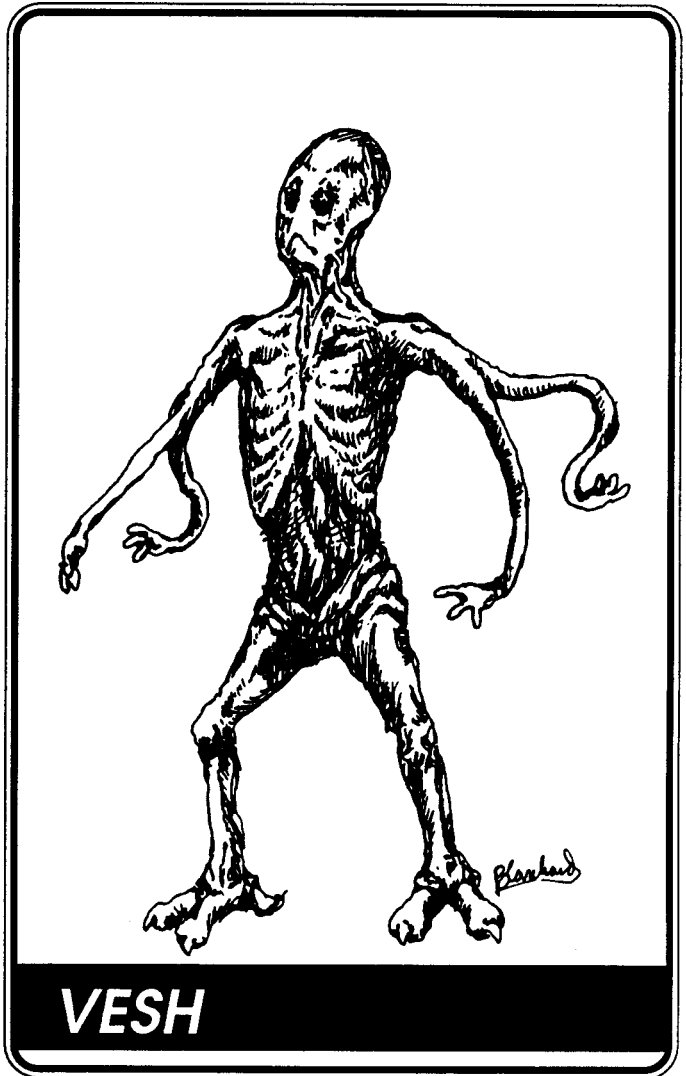
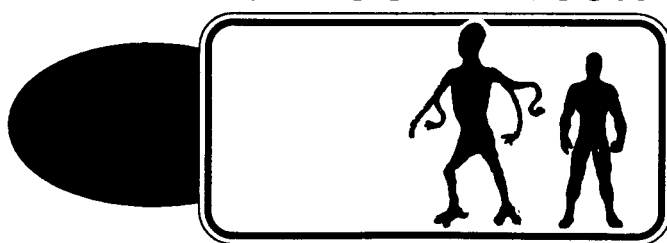
USUALLY SAYING:

"I obey your command..."

NAMING:

Vesh only use names given to them, often like: Jigsaw, Tinker, Vesh, Stupid, etc...

SIZE COMPARISON



The Vesh are a mystery to ISCO and the settlers they displaced from the Chen Colony.

Researchers speculate the half-mile long fragment of the starship that brought them into ISCO space is the remainder of a much larger craft that was destroyed in a drive accident in some other place or time. The 12,000 Vesh survivors have resettled on the frontier.

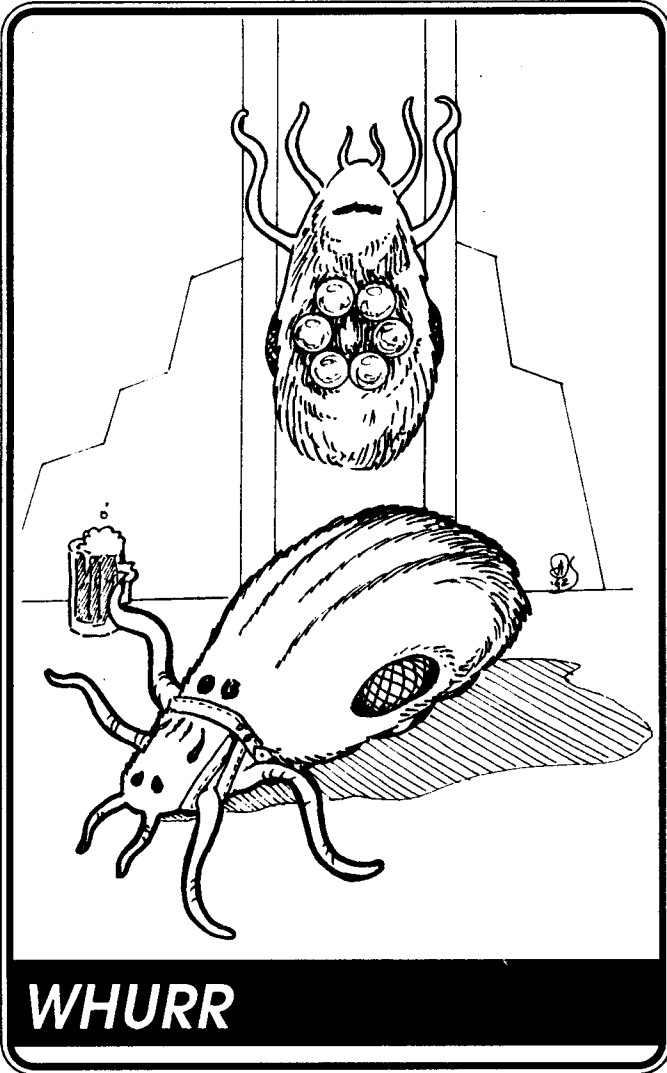
Obviously, the Vesh are the final product of massive genetic engineering. The average Vesh can dismantle their various body parts, removing an arm, leg, or organ, and 'plug in' a living replacement with a specialized function.

Vesh often inspire fear or disgust from other races who are troubled when this alien removes his head and begins to tinker with the eyes. Vesh are spreading across space to work as technicians and to learn about mankind and the other 'soft' races. Many races consider them nauseating.

Another variation on Vesh are warrior/ engineers with triple STR and four arms.

STATISTICS MODIFICATIONS

STR +06	CON +15	DEX +01	AGL -01
WIZ -09	ADA +0	ATU +04	STB -20



Whurr

Home World: **Vhe-Aet**
 Colonies: 4
BIOLOGY:
 SIZ: 1-2ft.
 GRA: 1.25
 LSP: 600/890
 SEX: 2
 GES: 1240
 BIR: 6
 ENV: 35-110
 SLP: 57w3s
 SML: D
 VIS: C
 TAS: H
 TOU: G
 HEA: C
 VOI: Sharp Buzzing
PSYCHOLOGY:
 TMP: 51
 MOT: 50

PERSONALITY AND VIEWS

ISCO: Neighbors
 ICL: Cops
 Family: Important
 Work: For A Profit
 Play: Often, With Young
 Wealth: Preferable
 Justice: If Caught
 Honor: Variable
 Humanity: Good Friends
 Politics: Fun
 Red Tape: Normal
 Space: The Great Frontier
 Warfare: Bad

SOCIETY

CON: 2340
 JOI: 2370
 HRS: 21000 BC
 QHR: D
 ATE: -
 SPC: 1940
 STF: 2350
 REL: A3
LANGUAGE
 Freq 100%
 96.5 FM

SKILL TENDENCIES:

Trade, Commerce, Law, Art, Crime, Engineering, Politics

GOOD TRAITS:

Most Human Traits, Friendly

BAD TRAITS:

All Human Bad Traits, Talk with a 'Sideways' Inflection, Mistaken for Machines.

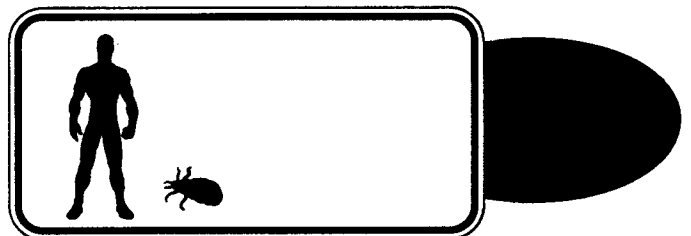
USUALLY SAYING:

"Excuse you I please?..."

NAMING:

Whurr have fallen in love with names of Terran Vehicles and use them as nicknames with proper titles. Dr. Ambulance, Vega, etc...

SIZE COMPARISON



STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-10	+0	+10	+06
WIZ	ADA	ATU	STB
-0	+01	+0	+0

Zath

Home World: **Ardaxis IV**

Colonies: -

BIOLOGY:

SIZ: 5-6ft.
 GRA: 1.1
 LSP: 49/110
 SEX: 2
 GES: 310
 BIR: 1
 ENV: 35-90
 SLP: 16w6s
 SML: H
 VIS: D
 TAS: G
 TOU: D
 HEA: E
 VOI: Light Tenor

PSYCHOLOGY:

TMP: 36
 MOT: 40

PERSONALITY AND VIEWS

ISCO: Great Bringers
 ICL: The Great Truth
 Family: To Protect
 Work: A Show of Skill
 Play: Not Often
 Wealth: Incidental
 Justice: Truth
 Honor: Most Important
 Humanity: Uncertain Friends
 Politics: Liars
 Red Tape: Useless
 Space: Waiting Truths
 Warfare: Ultimate Truth

SOCIETY

CON: 2429
 JOI: 2440
 HRS: 2429
 QHR: G
 ATE: -
 SPC: -
 STF: -
 REL: F2

LANGUAGE

High Zath 95%
 Low Zath 05%

SKILL TENDENCIES:

Metal Fabrication, Law Enforcement, Engineering, Records Research

GOOD TRAITS:

Known to be Fair, Never Lie, High Code of Honor, Justice and Friendship

BAD TRAITS:

Often Bigoted, Temperamental, with fast reaction and violent tendencies.

USUALLY SAYING:

"You Lie!"

NAMING:

Zath use family and line names like: Llarz, Larilen, Nowca, etc...

SIZE COMPARISON



ZATH

The Zath were a race contacted too early by an untrained survey group. The damage and cultural shock done, ISCO is now bringing this small bronze age culture into the 25th century.

Zath society is female dominated with the typical male being part of a 10 female matriarchy. The general Zathian birth ratio is 5 females to 1 male.

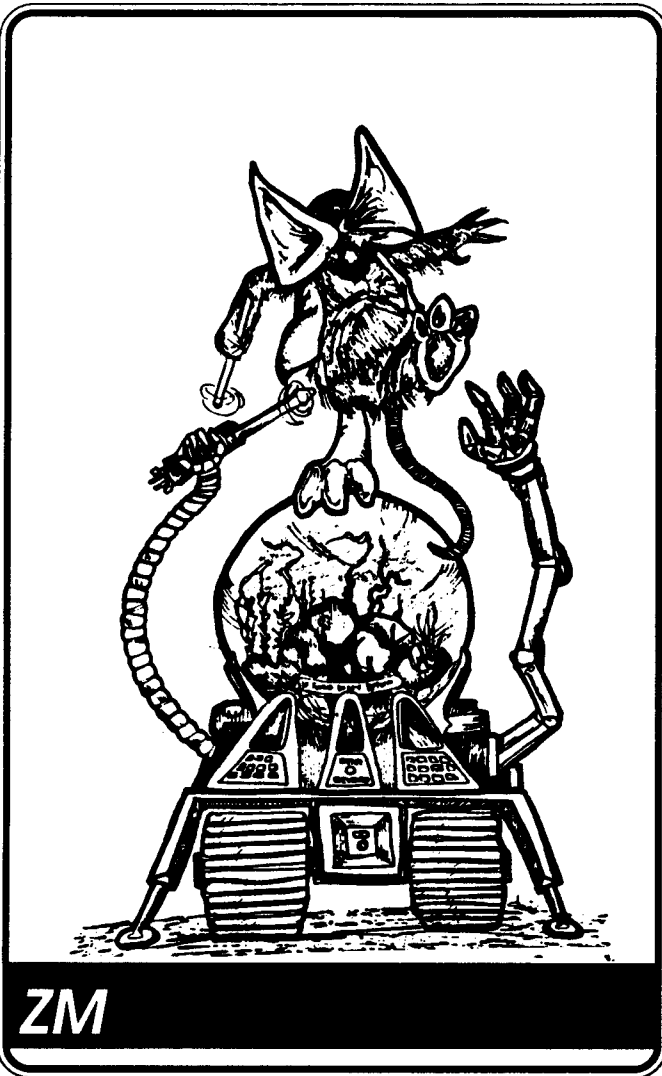
Zaths have a psychological aversion to lies in any form, whether verbal or physical. A majority of their beliefs and customs are based on this quest for absolute truth. Even a small lie to a Zath is a mortal insult. The more severe the lie, the greater the chance the Zath will challenge the liar to a duel to the death, using a family blade that is carried at all times.

The least volatile of their race or those who are free from a clan group are heading into space to learn and help Zath society integrate into a Starfaring society.

A Zath can be a trusted friend or an enemy with a grudge that will last a lifetime.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
+0	+02	+02	+04
WIZ	ADA	ATU	STB
-02	-04	+0	-30



Zm

Home World: **Zoopl**
 Colonies: -
BIOLOGY:
 SIZ: 3-4ft.
 GRA: 1.55
 LSP: 50/150
 SEX: 2
 GES: 1090
 BIR: 1 or 2
 ENV: -185 to -60
 SLP: -
 SML: A
 VIS: F
 TAS: F
 TOU: C
 HEA: C
 VOI: Bubbling Bass
PSYCHOLOGY:
 TMP: 89
 MOT: 90

PERSONALITY AND VIEWS

ISCO: Philosopher Kings
 ICL: Noble Warriors
 Family: To Teach
 Work: Tasting Rocks
 Play: Mathematics
 Wealth: Knowledge
 Justice: Ever Needed
 Honor: Everywhere
 Humanity: Confused Thinkers
 Politics: To Think About
 Red Tape: Ignored
 Space: Discovery
 Warfare: Stupidity

SOCIETY

CON: 2447
 JOI: 2448
 HRS: 20000 BC
 QHR: F
 ATE: -
 SPC: -
 STF: 1924 AD
 REL: A1
LANGUAGE
 Zmess 90%
 Terlan 56%
 MSTL 75%

SKILL TENDENCIES:

Planning, Philosophy, Psychology, Mathematics, Poetry

GOOD TRAITS:

Honest, Talkative, Good Psychiatrists

BAD TRAITS:

Slow, Off the wall use of philosophy, Boring, Persistent, Require special robotic habitats for survival at Terrestrial temperatures and pressures.

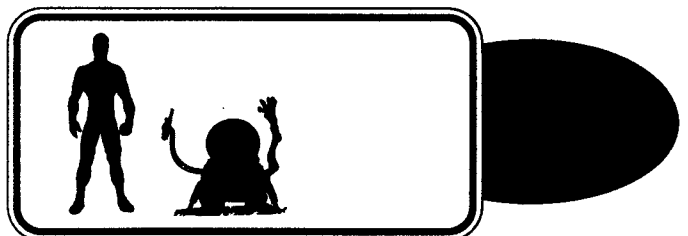
USUALLY SAYING:

"If you consider the rational outcome..."

NAMING:

Long mathematical strings with puns that give mathematicians ulcers. Many just use a Number/Letter combination.

SIZE COMPARISON



The Zm are a race of philosophers who tend to bore the other Methane breathers into a stupor. Looking like a wreck of rocks in an ammonia stream, these deep thinkers have won a place in the hearts of Humans and other Oxi's.

The Zm are now ISCO's outstanding poets and philosophers. With a punnish sense of humor they will go out of their way to get into a good conversation with a human and keep them talking for hours.

Historically the Zm did little but think and talk until they were found by the Markantse. With a second philosophy and a little help they jumped into space in search of the meaning of life and thought. In deep concentration, the Zm can appear dead for a week or until it gets hungry.

If a mineral sample is cycled into their environment, they can smell its content and give near perfect percentages of minerals and purity. Many are now found in robotic Environments built by Erezejee, Human, or Whurr.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-10	+12	+08	-06
WIZ	ADA	ATU	STB
-05	+03	+0	+30

Zumwol

Home World: **Gaccellus**

Colonies: -

BIOLOGY:

SIZ: 3-4ft.

GRA: 1.2

LSP: 30/65

SEX: 2

GES: 29

BIR: 4

ENV: 75-130

SLP: 48w5s

SML: B

VIS: B

TAS: D

TOU: G

HEA: F

VOI: Metallic Falsetto

PSYCHOLOGY:

TMP: 05

MOT: 48

PERSONALITY AND VIEWS

ISCO: Bureaucrats

ICL: Bureaucrats with Guns

Family: A Tax Asset

Work: Aggravating

Play: No

Wealth: Comfort

Justice: More Bureaucrats

Honor: Ridiculous Concept

Humanity: Friendly Bureaucrats

Politics: Big Bureaucrats

Red Tape: Disdain

Space: Horrifying

Warfare: Useless

SOCIETY

CON: 2375

JOI: 2377

HRS: 1940

QHR: H

ATE: -

SPC: -

STF: 2375

REL: H1

LANGUAGE

Zumm 90%

Bloxian 46%

Terlan 95%

SKILL TENDENCIES:

Computer Programming and Repair, Debate, Law, Business, Insurance, Used Car/Starship Sales

GOOD TRAITS:

Accurate (99%) in very complex mental calculations.

BAD TRAITS:

Talk Incessantly, Crabby, Hog Saunas, Love Live Seafood, Obnoxious

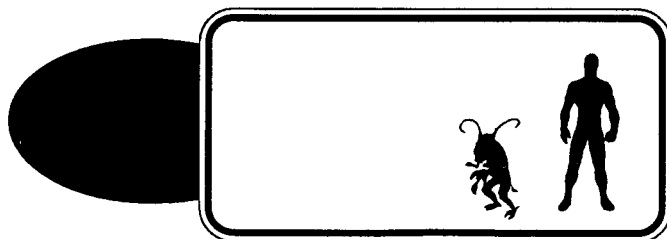
USUALLY SAYING:

"I told you so!!!" "Oi Pituui...is your wife ugly!"

NAMING:

Often, Zumwol take Human names for easy use when dealing with inferior creatures who cannot pronounce the Zumm language.

SIZE COMPARISON



ZUMWOL

If there was ever a creature that did not deserve sentience, it was the Zumwol. By far, the Zumwol would have been left to their homeworld if it hadn't been for their skills with higher mathematics. For this ability, they paid the price of being the most foul-tempered race in known space.

The Zumwol have become firmly rooted in ISCO space as a living link to computer systems. This is only when they wish to cooperate, which is not often. A typical Zumwol will go out of their way to aggravate another being to blind rage. Bloxians avoid them with all haste.

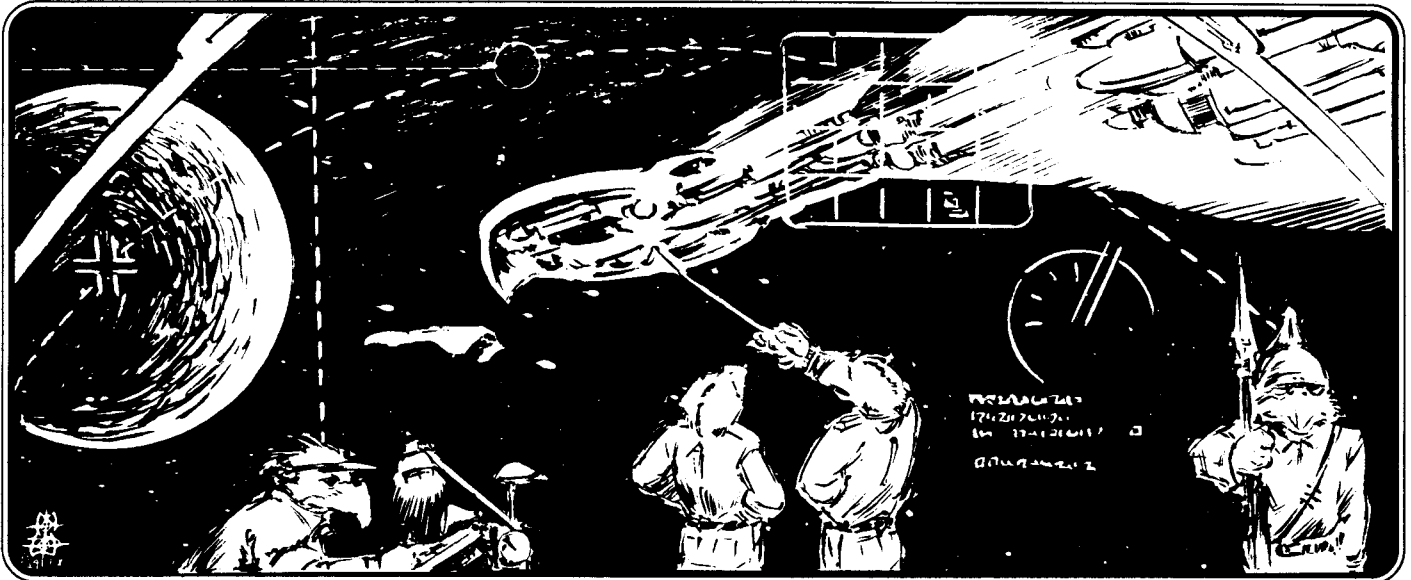
Zumwol have a lighter side that is rarely seen. When one is nice to you it is either a bribe to accomplish something or its having a real bad day.

The average Zumwol has three languages and at least 300 cusswords in 10 other languages which they practice at the drop of a hat.

More Zumwol die in airlock accidents every year than any of the other known races.

STATISTICS MODIFICATIONS

STR	CON	DEX	AGL
-05	+0	+06	-04
WIZ	ADA	ATU	STB
-0	-06	+0	-25



The Enemy

It began in late 2440 with reports of scattered attacks on the far frontier, coupled with reports of refugees of three new races. ISCO and ICL ships soon discovered their worst fears were realized when ISCO space had expanded into another growing cluster of worlds called the "Hagu Sphere of Uplifting" or "Empire" as the ICL psychologists branded it after talking to the Paebak and Uranzi.

Refugees described the Sphere of Uplifting as little more than planetary domination and death camps for those who are not able to cope with the 'new prosperity' the Hagu bring in 'their generosity'.

Hagu

After an initial confrontation in space at Frenner Colony 32, the Hagu, bird-like warm-blooded mammals, began to converse with their new neighbors.

Offering friendship, but no travel into their space, they immediately requested large masses of technical information in trade for very little of similar value. Not being blind to past history, the ICL limited material and trade to cultural items with no military use or potential. This quickly infuriated the Hagonni who began to steal anything not welded down.

Raiders

Soon after, colonies on the frontier began to be raided by another race of ruthless plunderers and fierce fighters, the Zanke. It became evident that the Zanke were the military arm of the Hagu who preferred to have someone else do their 'dirty work'. Survivors described the Zanke as cruel and efficient, plundering and murdering any who showed the slightest bit of resistance.

Cold War In Space

With political negotiations snarled in red tape that only a Bloxian could sort through, talks have been highly sporadic and useless, closely resembling the cold wars of Earth's twentieth century. While the Hagonni talk the raids continue and the refugees still come to ISCO space.

On The Frontier

The Hagonni had been an interstellar race for nearly 800 years when they first encountered ISCO. However, no direct contact was made by the Hagonni toward ISCO during the first encounter.

In the Hagonni year 2292 (2439 AD), a squadron of three Hagonni exploration vessels from the Greyton Barony began exploring an unexplored system at the far reaches of their frontier. They discovered an inhabitable world with no signs of intelligent life. Orbiting the world was a satellite of Alien Origin. After retrieving the satellite, they determined it was not of Hagonni construction, nor did it resemble the technology any of their subjugated races.

The Hagonni had encountered few races with with FTL capabilities, and most of the races in the infancy stage at that. Postulating the race must be in the stellar neighborhood, they began the search. Any alien race with space faring capabilities had developed their own world to a point where little effort was needed to be made by the Hagonni in utilizing their resources after this world was brought into the sphere of prosperity. This prize was very important to Greyton and Baron Greybak seeing it was on the dividing line between Greyton and Vorlon territory.

The Vorlon, another of the Hagonni Baronies, was well noted for their industrial might, bad temper, and Zanke legions.

Conflict Area

V	Hagonni 'Vorlon'
G	Hagonni 'Greyton'
*	Active Border
C	ISCO 'Colony'
F	ISCO 'Frontier'
U	ISCO 'Unexplored'

Edge of ISCO Space showing Greyton and Vorlon Hagonni / ISCO Area F8 & F9

Hagu

Home World: **Gaklon**
 Colonies: 934+

BIOLOGY:

SIZ: 5-6ft.
 GRA: .95
 LSP: 80/110
 SEX: 2
 GES: 190
 BIR: d4
 ENV: 55-110
 SLP: 15w7s
 SML: C
 VIS: F
 TAS: G
 TOU: C
 HEA: D
 VOI: Reedy Soprano

PSYCHOLOGY:

TMP: 44
 MOT: 45

PERSONALITY AND VIEWS

ISCO: A Joke
 ICL: A Problem
 Family: A Burden
 Work: For Profit
 Play: For the Deranged
 Wealth: Most Important
 Justice: For the Strong
 Honor: Not Profitable
 Humanity: Stupid and Gullible
 Politics: A Must
 Red Tape: An Aid to Conquest
 Space: Profitable
 Warfare: For Profit

SOCIETY	
CON:	2447
JOI:	n/a
HRS:	1000 BC
QHR:	B
ATE:	120 AD
SPC:	1247 AD
STF:	1955
REL:	A5
LANGUAGE	
Hagonni	95%
Zankee	44%
OTHER	03%

SKILL TENDENCIES:

Trade, Organization, Some Engineering, Weapons Use, Politics

GOOD TRAITS:

Good in Business, Clean, Charismatic, Smiling

BAD TRAITS:

Plotting, Vicious, Drop Feathers when Excited, Think they are destined to rule settled space, Dishonest, Pushy, Work with the Zankee and actually like them.

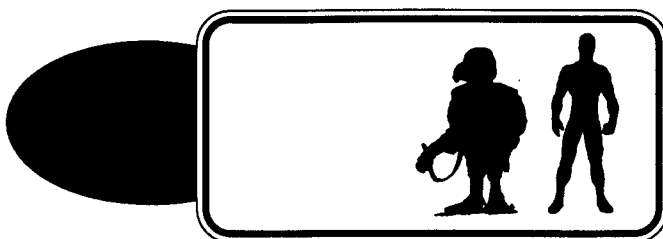
USUALLY SAYING:

"I'll have to contact my superiors for an answer to that..."

NAMING:

Short single names of two syllables, Ak-n, Ga-c, Be-q, St-r, Vr-en, etc...

SIZE COMPARISON



HAGU

On the Core side of ISCO space is a small vicious empire carved out by the Hagu race and their allies.

These bird-like cowards have subjugated a half-dozen other races in their planetary colonization. Even though ISCO and the ICL are unable to interfere, they have heard the pleas for aid from worlds within the Hagu Sphere of Influence.

The Hagu have a knack for professing peace, while walking over mixed human/alien colonies on the far frontier. Refugees from Hagu space are now becoming common on the frontier.

More and more, Hagu trading vessels are entering ISCO space for technology and other 'less-than-friendly' reasons that ISCO believes could plunge this era of peace into an interstellar conflict that could cost literally billions of lives.

The Hagoni Empire is far less united than ISCO believes and little do they know about the other war being fought on the opposite end of the Sphere of Uplifting.

STATISTICS MODIFICATIONS			
STR	CON	DEX	AGL
-06	+0	+04	+2
WIZ	ADA	ATU	STB
-0	+0	+0	+0

The Bezwott Disaster

When the Shuttles landed, the Dabe and mixed Human colony of Bezwott ran out to the landing fields to meet and welcome them. Of the 300 man colony, only a third continued to work or were out on mineral exploration missions for the Zentak-Oshida corporate.

As they hit the edge of the tarmac the crowd stopped to wonder at the odd shuttle designs. These were more like cargo shuttles.

The main doors swung open and the first Zankees tumbled out to face the colonists.

Realizing this was a historic alien contact, Coordinator James Washburn walked forward with his Dabe assistant Hegrat. In true Dabe fashion, Heg used two of his arms to pat his head and opened his mouth in a look of bewilderment.

As Washburn smiled and extended his hand, the Zankees squad opened up with a full volley of Maser fire. The battle was over in two minutes, with the screams of the injured and dying being eliminated one by one.

Remaining colonists fought or took to the hills to snipe ineffectually at the marauding bands that sacked and destroyed their town. A final desperate act of Humans and Dabe was the destruction of the colony's computer and library center to prevent the Zankees from taking technical records. The parting reply from the raiders was a small fusion device to flatten the area.

The supply freighter found 44 survivors and the Zankees raiders had claimed the first victory point.

RETURN TO BEZWOTT

Half of the 44 elected to wait for ICL help and dug themselves in.

Within 6 months a second coastal colony was evident from the air, complete with vehicles and a small population. As the raiders returned they failed to realize the setup was a sham and over 500 ICL marines were positioned in the countryside. The buildings were mostly empty shells.

As the first shuttle touched down the remaining three were destroyed in the air. Of 144 Zankees, a half dozen were taken prisoner.



"I Trooper,
Zankees Trooper!
I Fight!
I Kill!
I Soldier!
Get Soldier Pay!
Get Food!
Fight Good!
Good Life!

Gren Gark
Zankees Trooper

WAR IN SPACE

As the ground battle of Bezwott raged, a strike force of three heavily Armed ICL Ontario class scouts tackled a carrier ship of unknown design, since dubbed a Pelican. As the enemy ship fled and began its starjump, it was struck with missiles designed to damage but not destroy the ship. The ship jumped, but due to the nature of the damage, was assumed lost. This first incident in 2446 has become classified by the ICL and is on a need to know basis only.

"You should have seen it run! A starship, a huge one with a couple of dozen of the raiding shuttles in its framework. The ICL Hancock hit it with two missiles and caused a massive cloud of debris.

The ICL Morlan and the ISN Keston Ra chased it and hit the engines with a ripper warhead. It jumped about that point, but the debris cloud was even more massive than before.

If ya ask me...they didn't make it home!



Gerplin Monk
ISN Portland



Zankee

Home World: **Gagbfl**

Colonies: 10+

BIOLOGY:

SIZ: 4-5ft.

GRA: 1.45

LSP: 45/90

SEX: 2

GES: 490

BIR: 1

ENV: 45-120

SLP: 26w5s

SML: B

VIS: D

TAS: C

TOU: D

HEA: D

VOI: Liquid Bass

PSYCHOLOGY:

TMP: 09

MOT: 43

PERSONALITY AND VIEWS

ISCO: No Consequence

ICL: Opponents

Family: More Troops

Work: Mercenary Skill

Play: Killing Prisoners

Wealth: To be Stolen

Justice: For the Strong

Honor: War

Humanity: Victims

Politics: Between Wars

Red Tape: Solved With Guns

Space: Battleground

Warfare: Fun

SOCIETY

CON: 2448

JOI: n/a

HRS: 2300 BC

QHR: A

ATE: 80

SPC: 89

STF: 2190

REL: F5

LANGUAGE

Zankee 85%

Haggonni 10%

OTHER 01%

SKILL TENDENCIES:

Killing, Demolition, Open Warfare, Wrecking Treaties

GOOD TRAITS:

None

BAD TRAITS:

Stink, Have no respect for life or art, Stupid, Believe Being 'Cannon Fodder' is an honor, often refuse to take prisoners, shoot civilians for sport.

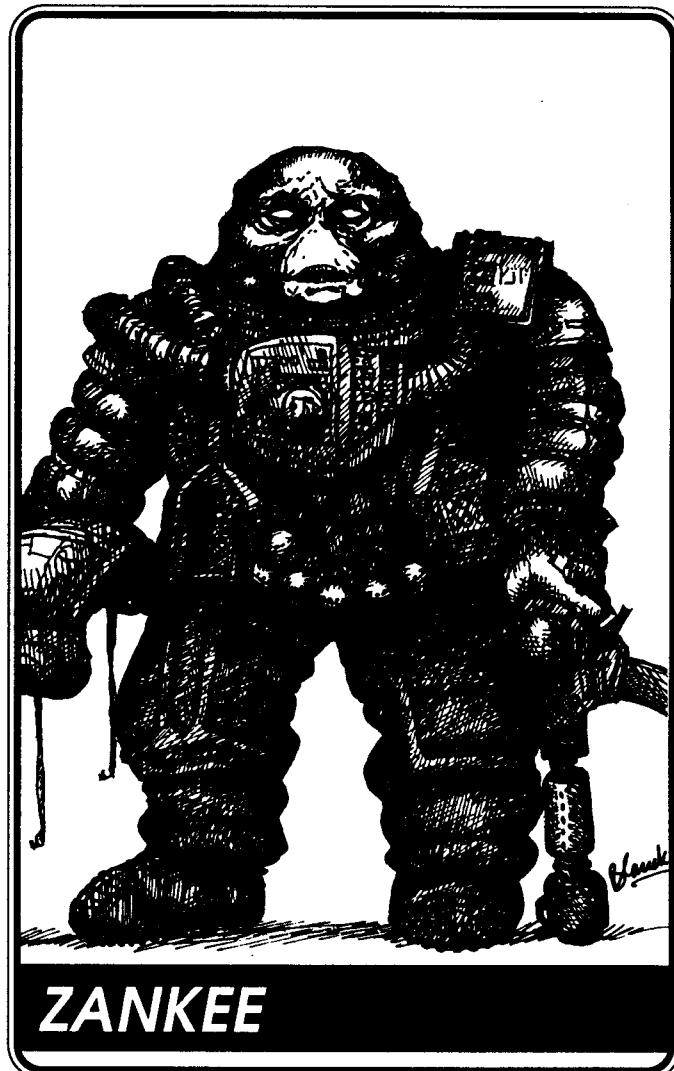
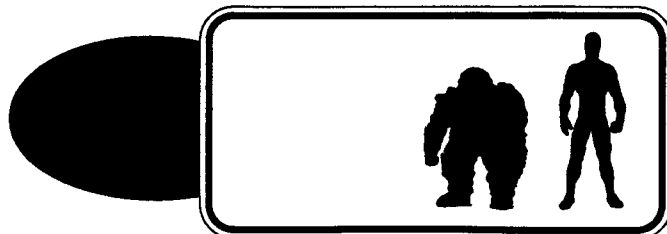
USUALLY SAYING:

"You Die!"

NAMING:

Short, harsh-sounding single names of one syllable. Kra, Goord, Shrakk, Gar Gak, Skoo, etc...

SIZE COMPARISON



Friends and warriors of the Hagu are the small, vicious creatures called Zankee.

A remnant of a forgotten Star Empire, the Zankee have lost their history and the reason for becoming a race of mercenaries. With no redeeming social value, these war-oriented aliens are a menace not only to themselves, but to anyone foolish enough to cross them.

The Zankee philosophy is simple- If you can't eat it, enslave it, and if you can't enslave it, blow it up. If it is more powerful than you, shoot it in the back.

Zankee starships are of Hagu design, and are highly functional, small, and often bristling with missiles, guns, and lasers. These small craft are often more than a match for cargo vessels and frontier defenses, and are often used as pirate craft.

The average Zankee is usually seen in a Plastic-like Ballistic Combat Armor that is often battle-scarred. A recent rumor cites these monsters as being cannibalistic.

STATISTICS MODIFICATIONS

STR +04	CON +04	DEX -03	AGL -02
WIZ -06	ADA -06	ATU +0	STB +10

SHOPPING IN 2448

With currencies changing from country to country, and even planet to planet, a method had to be devised to allow commerce over settled space.

The result was the universal credit meter of the Star Bank of Seredin. This pocket-sized computer AI has a permanent memory of transactions and available credit based not from precious metal or resource, but from man-hours of labor.

REMEMBER

- 01 Credit meters may be used for person-to-person transactions by joining them and transferring credits.
- 02 Transactions may be transferred to printed form with any simple printer attachment.
- 03 Any attempt to alter, open, scan or tamper with a credit meter wipes the data card within, and also emits a signal that will cause any other meter within 5500 ft. to report tampering. The damaged meter's serial number, credit and ownership information is transferred to civil authorities.
- 04 Credit meters are practically foolproof and virtually indestructible. (There are exceptions...)
- 05 For nostalgia's sake, most products and prices are based on the former earth standard of metric currency.
- 06 Checks and Credit Cards are also common.

100 Yen = 1 Dollar Terran

y or y's = Yen
 d or d's = Dollars
 h or h's = Hundreds
 t or t's = Thousands
 m or m's = Millions
 b or b's = Billions

GENERAL PRICE GUIDELINES

STARSHIPS

Port Cost, Full Docking, Per Day	d4	t's
Parking Fee, Orbital Port, Per Day	d6	h'
Starship Inspection	d4	h's

GROUNDPORT

Shuttle, Landing or Leaving	d4	h's
Shuttle Inspection	d10	h's

FUEL TYPE

Gigantic Unit	1280	d's
Large Unit	0320	d's
Medium Unit	0032	d's
Small Unit	0016	d's
Shuttle Unit	0008	d's
Vehicle Unit	0004	d's

VEHICLE

Shuttle (large)	0100	m's
Shuttle (medium)	0050	m's
Shuttle (small)	0025	m's
Lander	0005	m's
Emergency Atmospheric Re-Entry Pod	0030	t's
Re-Entry Ball	0002	t's

Small VTOL Jet	0022	m's
Hover Truck	0290	t's
ATV Truck	0220	t's
Truck	0090	t's
Hover Car	0100	t's
ATV Car	0075	t's
Car	0050	t's

TRAVEL FARES

1st Class Starship (one way)	0004	t's
Econo-Fare (one way)	1500	d's
No-Frills Passage (one way)	0950	d's
Cryo-Frozen (one way)	0500	d's
Shuttle Rental (per day)	d4+1	t's
Atmospheric Airline (one way)	d6	h's
Train (surface)	d20+5	d's
Express Train (subsurface)	d20 +5	d's
Bus Fare (continent)	d100	d's
Cab Fare (per mile)	.50	d
Truck Rental (week)	2d100	d's
Rent-a-Hovercar (week)	d100	d's

VAC EQUIPMENT

Vac Suit (emergency)	d10	h's
Vac Suit (light)	d4	t's
Vac Suit (standard)	d10	t's
Vac Suit (heavy)	d100	t's
Exploration Suit (very heavy)	4d100	t's
Vac Armor (powered)	d4	m's
Automatic Suit Patch Feature	d10	h's
EVA Pack	d100	t's

WEAPONS

Pistol (revolver)	d4	h's
Pistol (automatic)	d8	h's
Pistol (laser)	d6	t's
Rifle (carbine)	d10	h's
Rifle (assault)	5d10	h's
Rifle (laser)	d10	t's
Shotgun (single or double shot)	d4	h's
Shotgun (assault)	d10	h's
Ammunition (most types-per round)	d100	y's
Case Explosives (licensed)	d100	h's
Ballistic Plastic Vest	2d100	d's

GOODS

Clothing, High Quality	2d100	d's
Clothing, Discount	d20	d's
Boots/Shoes	d100	d's
Business Suit, Mens, Ladies, Alien	d4	h's
Tennis Shoes	d10+	d's
Sweater	4d10	d's
Underwear	d10	d's
Backpack	d100	d's
Tent (per each human-sized occupant)	d100	d's
Arctic Clothing	d6	h's
Air Filter Mask	d100	d's
Breathing Pack (100 +d10 hours)	d4	h's
Personal Pocket Computer	d10	h's
Computer Program & Data Cartridges	d100	d's
Hotel (per night, varied to quality)	150	d's
Meal	d10+2	d's
Coffee	0001	d
Alcohol (liter)	5d10	d's
Beer (6-pack, 1/2 liter units)	d6+3	d's
Soft Drinks (24 1/2 liter units)	d4+1	d's

Tri Tac Games

Vegetables, Canned	50	y
Sandwich, Syntha Bologna	2	d's
Almost Choco Candy Bar	75	y
Ration Pack (Days Meal)	d4	d's
Can of Catfood	0001	d
American Plasti Cheeze (24 slices)	0002	d's
Gallon Soy-Milk	0002	d's
Head of Lettuce	0001	d
Almost Beef Steak (1 Lb)	0004	d's
Durf Steak (1 lb)	0020	d's
Pizza Lg. (Delivery 30 minutes or less)	d10+5	d's
Chicken	0002	d's
Rehydro Meal (Bre, Lun, or Din)	0001	d
Bag of Soy Tater Chips (6 oz)	050	y
3 Pounds Same as Caf Coffee	d10	d's

WORKING

Coveralls	4d20	d's
Work Boots	d100	d's
Jump Suit	d100	d's
Gloves	d10	d's
Vari-Wrench	4d10	d's
Multi Screw Gun	d100	d's
Sawzall Multi Saw	2d100	d's
Hammer	2d10	d's
Multi Meter	3d10	d's
Electronic Analysis Meter Computer AI	d100	d's
Tool Kit (Simple)	5d10	d's
Tool Kit (800 Pieces)	d4	t's
Carpentry Kit (Plastic/Wood)	2d10	d's
Metal Fabrication Tools	d100	d's
Pound of Screws	d4	d's
Gallon of Paint	d20	d's

EDUCATION COSTS PER YEAR

Primary	Free	
Primary (Private)	d10	t's
Secondary	Free	
Secondary (Private)	d10+2	t's
College (Computer)	d100	h's
College (Traditional)	d20+5	t's
Adult Education	d100	d's
(4 Months Time. Adds +1 Skill Level on a 50% chance.)		

ELECTRONICS

Home Computer AI	d10	t's
Stereo AI	d10	h's
Toaster AI	d100	d's
Stove AI	d10	h's
Refrig/Stasis/Freezer System	d10	h's
Microwave AI	2d100	d's
Rehydro AI	2d100	d's
Small Robotic AI	d4	t's
Robotic Humanoid AI	d10+5	t's
Perfect Humanoid AI	d100	t's
100" Thousand Channel Holo TV AI	d4	t's
Boom Box AI	d100	d's
Saxophone AI	d4+2	h's

RENT & HOME

Apartment (Lower Class)	d10	h's
Apartment (Better)	2d10	h's
Apartment (Space Station)	d4	t's
Suburban Home	d100	t's
Rural Home	d4	m's
Home in Historical City	d10	m's
Home in Historical City Slum	d100	t's

HISTORICAL PERSPECTIVE

"Like we was diggin in this foundation that was laid back in the 20th century, over 500 years ago, and I find this plastic box. Blart, he's my buddy, the Dabe over there, and he says "Open it Charlie, Could be good stuff!" Well I opens it and it looks like a lunch box with a sandwich and some kind of cake in a plastic wrapper. The sandwich is so much dust. The snack cake looks as fresh as the one I have in my lunch box. Same company too. The price on the cake is 95 cents, I guess that's like Yen. Mine says 99y. I can't complain, prices ain't much different. Well Blart ate the cake by mistake and it didn't hurt him. We couldn't sell that, but the 1993 5¢ coin in the box got us enough d's for a couple month's worth of beer."



Charlie Gorman
Demolition Engineer
Dayton Reclamation
US Ohio Sector

REPAIR AND PROFESSIONAL SERVICES

Electronic Technician (per hour)	2d10	d's
Shuttle Repairman (per hour)	5d10	d's
Phase Technician (per hour)	10d10	d's
Fusion Technician (per hour)	10d10	d's
Lawyer (Per Hour)	d100	d's
Accountant (per hour)	4d10	d's
Medic (per hour)	2d10	d's
Doctor (per hour)	d100	d's
Psychiatrist (per hour)	8d10	d's

GENERAL WAGES PER WEEK

Worker (Unskilled)	0300	d's
Worker (Skil Level 01-05)	0600	d's
Worker Tech (Skill Level 06-10)	1000+	d's
Supervisor	0800+	d's
Manager	1200+	d's
High Management	1500+	d's
Upper Management	2000+	d's
Governmental Employee	0800+	d's
Teacher	0900+	d's
Professor	1500+	d's
Starship Tech	1000+	d's
Starship Engineer	1500+	d's
Starship Officer	1800+	d's
Military Trainee	0200+	d's
Military Crewman/Grunt	0300+	d's
Chiefs	0450+	d's
Officer, Lower Grade	0750+	d's
Officer, Mid Grade	1000+	d's
Officer, High Rank	2000+	d's

PRICE QUALITY MULTIPLIER

As in any other century, if you want quality you have to pay the price. Some things never change.

Outstanding	x 4.00
Good	x 2.50
Average	x 1.00
Fair	x 0.75
Poor	x 0.50

EQUIPMENT

This gives you a general idea of the technology of FTL:2448. Many common items of the 20th century will be recognizable and virtually unchanged. Many will be upgraded to their technical ultimate, at least until *next year's* model premieres.

THE AI REVOLUTION

By 2448 the science of AI Artificial Intelligence, has become a way of life. These simple and inexpensive systems are built into nearly all products from Clothes to Self Heating Package Wrappers. These smart sensors talk and respond to simple or complex commands given by their owners. Many are linked into servo mechanisms for independent movement and manipulation.

AI CLASS A

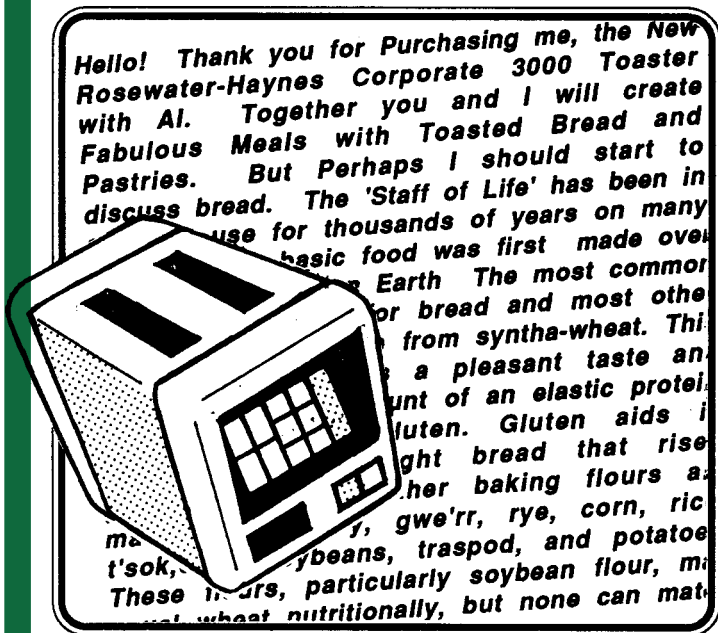
This class is a very sophisticated system of programmed information and response. Used in industry, home computers, and education, they also watch over their owners, make suggestions, and can monitor health and personal communication. AI chips are decision makers. Researchers have noticed that after a time a Class A takes on a distinctive personality. These, like all AI chips, talk.

AI CLASS C

The average Class C AI is a monitoring system used in home and office. Most B Chips are used in household appliances and limited robotic cleaning units. At best they are not terribly bright and have trouble dealing with varying or difficult situations.

AI CLASS F

Throw away AI's are the bane of the consumer in 2448. These micro chips advertise products and give package instructions. They also carry product warnings. On the useful side, most non talking F chips are used in monitoring systems and locked into communication with Class A systems.



WRIST WATCH

WTE: 00.02 lbs.

A standard, store-bought AI electronic watch with a voice-operated computer link, 90 Gig M memory, calculator, reminder, chronometer, telephone and personal health monitor. It is waterproof, shock resistant and vacuum-capable. COST: 15 d's

PORTABLE READER

WTE: 00.30 lb.

A folding, solar or battery-powered reading device that projects or displays information and reading material. The reader utilizes standard 1 inch laserdisks and can store up to 10 Terrabytes on a single disk. This compact laser disk can also be used to store films, color 3-D photo images, and sound. The more expensive models have built-in computers and AI features. It fits in a belt pack or carry case. COST: 90-1000+ d's

DATA STICK

WTE: 01.50 lbs.

The universal information gathering tool is the Data Stick. Compact and versatile, it is carried by planetary explorers as well as engineers for general use. It can be set for detection and direct signal or AI computer. It can hold up to 500 Terrabytes of accessible data in a standard 1 inch laserdisk. Links to a wristwatch-sized AI control monitor allows the Data Stick to become a remote sensor when mounted on an independent robotic chassis.

FUNCTIONS POSSIBLE

Detection and General use: Gas, Pressure, Motion, Infrared, Ultraviolet, Radiation, Magnetics, Metal Type, Mineral, Mass, Composition, Temperature, Image Intensifier, Remote Camera, Night Scope, Medical Sensor, Full AI Computer, Radar, Sonar, Receiver, Transmitter, Meteorological Data, Communications, Ultrasound Scan, Beacon Light, Language Translator, Recorder, Camera, Bio-Chemical analysis, and Stereo. Sensor Probe tip is available in 2, 4, 6, 8, and 12 foot interchangeable extensions. COST: d10+10 t's Add another d4 t's for the robotic carrier unit.

Communication:	Orbit
Scan:	100-150+ ft.
Analysis:	Touch
Radar:	25 miles.

HOME COMPUTER

WTE 01.50 lbs.

This laptop computer easily hooks to a wide range of analysis and general utility equipment. Powered by standard 24 v. house current or rechargeable battery requires 6 minutes to fully recharge and gives 46 hours use time.

The average home computer manages home or apartment, business, smaller Robotic AI's and provides information and educational services.

This system can be used independently or linked into the Universal Computer and Data Network that spans ISCO space.

- * CPU 10 Terrabyte Luminetic, or Crystal Photochromic Storage* Optical Hard Drive 400 Terrabytes
- * Process 80 Gig Speed
- * Optical Ten Terrabyte Mini Floppy (1.0 inch)
- * 9025 x 9025 Resolution Color Flatscreen or Full Projection Holo up to 200 inches in diameter.
- * Full AI Interactive Artificial Intelligence
- * 3v Thulium Hydride Battery System w/quad backup

CAMERA

WTE 00.20 lb .

The universal camera used in 2448 is a composite system of a single frame and motion picture color camera. Computer operated, it stores sound and images on 1.0 Optical Floppies. Good for 10,130,000 still images, or 80 hours of video. Holds 4 disks. A 600 hour storage cartridge can be attached to the camera. Can be programmed by use of built in AI. Links to any other AI system.

Tri Tac Games

ELECTRIC BARRIER KIT

WTE: 20 lbs.

A simple disposable wire fence system that can enclose a 250 by 250 foot area. This can be set with a voltage from a generator that will deliver up to 8 amps if contacted. It can be hooked to an AI computer perimeter monitor and any robotic remotes or automatic weapons pod. COST: d100 +100d's (generator is separate)

SLEEPING BAG

WTE: 04 lbs.

Insulated sleeping bag that protects from temperatures as low as -80 F. Can be unzipped to form a 12 x 24 foot waterproof tarp. With a self inflator and AI, it can be inflated to become a 4 man raft. The lining can be eaten in emergencies, and will provide 4 weeks of food for two people. COST: d100+50 d's

SURVIVAL SHELTER TENT

WTE: 02 lbs.

A self inflating double-walled tent that can hold up to 4 people. Sets up in less than 2 minutes, and can be broken down in 5. It protects from water, as well as temperatures as low as -190 F. With a portable heating and cooling unit and computer AI it can serve in virtually any environment. A small airlock can be added with a weight addition of 5 pounds. COST: d10+100 d's

SPRAY LIGHT

WTE: 01.00 lb.

Spray-On-Light is a canned fluid that fluoresces when it contacts oxygen, and lasts up to 24 hours. It evaporates without residue. A 6 x 36 inch painted stripe can illuminate an average 10 x 20 room. (100 uses, any color) COST: 2 d's

BUSH PACK

WTE: 30.00 lbs.

A Bush Pack is a complete camping kit that contains 30 days worth of ration tabs, a tarp, camping gear, purification filters, minor medical supplies, 300 feet of filament rope, saw, and a standard mini-reader stocked with survival data. Larger packs have a flare gun or laser beacon as well as a pen-styled laser (does d4 burn damage) and a small solar charger. COST: 110-400 d's

DISH OR FLAT CHARGER

WTE: 10.00 lbs.

A sunlight powered recharger and generator for small equipment or campsites. This unit will recharge all types of common batteries as well as provide house current. Stores 96 hours of power when the sun is not shining. COST: d4 h's

FLASHLIGHT/LANTERN

WTE: 0 .5 lbs.

A hand-pumped light with ten minutes of available light per 10 squeezes of the handle. Also has a charger that will enable the light to provide 6 hours of light for a 2 minute recharge time. Can be reconfigured to lamp or lantern design. Can also double as an ultrabright rescue beacon at half the time of normal light use. COST: d100 +20 d's.

Tool Kit Standard A

WTE: 11 lbs.

General tools for small repairs include: Screwdrivers, pliers, hammer, cutters, files, small 5 blade saw, chisel, wire and an adjustable wrench. COST: 45 d's.

Tool Kit Standard B

WTE: 170 lbs.

General tools with the addition of some specialized tools for more difficult jobs. More than 800 pieces cover the majority of any engineer's mechanical needs. Some tools have built in AI's for assistance with use. Comes in a mobile robotic tool carrier with limited AI. COST: 2200 d's

Tool Kit Standard C

WTE: 970 lbs.

All tools of the above in many sizes as well as specialized types with heavy electrical power tools, saws, drills, porta-wood-shop, metal fabrication shop, hydrogen torch, electronic repair station, Computer AI multimeter and chain saw. Comes in a mobile robotic tool carrier with limited AI. COST: 7800 d's.



VEHICLE REPAIR KIT

WTE: 68 lbs.

Special tools and parts to repair or jerry-rig 90% of vehicle problems on modern and older vehicles. Contains a 20 ton capacity hydraulic jack. COST: 810 d's

CUTTING TORCH

WTE: 15 lbs.

A compact hydrogen torch with 8 hours cutting time, or 16 hours welding time. The torch cracks air into its own fuel and pressurizes it for use. The torch's life is its battery power supply. When hooked to a generator it cuts as long as it has power. Recharging is accomplished in 20 minutes. COST 1400 d's

FABRICATION SHOP

WTE: 970 lbs.

An electric powered bench with saws, vertical mill, lathe, and other wood and metal shaping attachments. This unit has 6 robotic arms controlled by a computer AI or manually controlled. Set up time is d100 minutes. COST 67 t's

ELECTRONIC SHOP

WTE: 970 lbs.

An electric repair station capable of analyzing and repairing circuitry and computerized components. This unit has 6 robotic arms controlled by a computer AI or manually controlled. Set up time is d100 minutes. May require specialized parts for repair or unusual material for component fabrication. COST 110 t's

SMELTER

WTE: 21 tons.

A smelter that can refine ore into bricks or powder. This can be coupled with a processor to create metal plate, bars or special beams. Most often used with iron. Can refine one ton of metal per 15 minutes. Built in AI Computer. COST: 1.5 m's

METAL PROCESSOR

WTE: 19 tons.

A metal processor that can turn pig iron and other metals into plates, pipe or any of a large number of shapes that can be refined by the machine shop. Has a maximum plate creation size of 5' x 5' x 1/2" Built in AI Computer. COST: 1.75 m's

CHEMICAL REFINERY

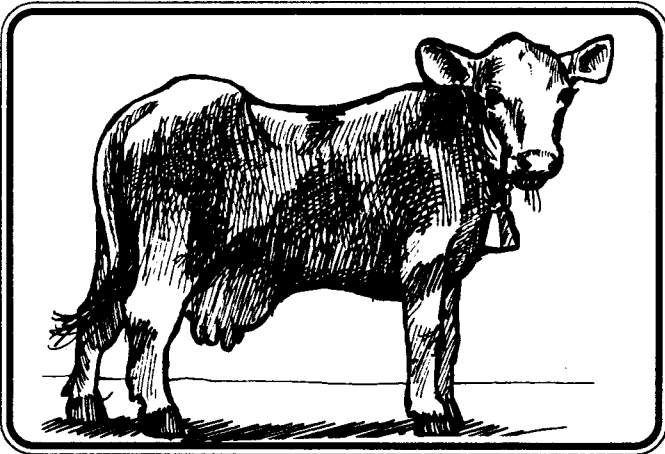
WTE: 11 tons.

A smelter that can refine ore into reasonably pure chemical components. This can be coupled with a processor to create alloy plate, bars or special beams. Can extract water and refine petrochemicals. Can refine one ton of chemical per 15 minutes. Built in AI Computer. COST: 1.5 m's

ROBOTIC REMOTE

WTE: Any

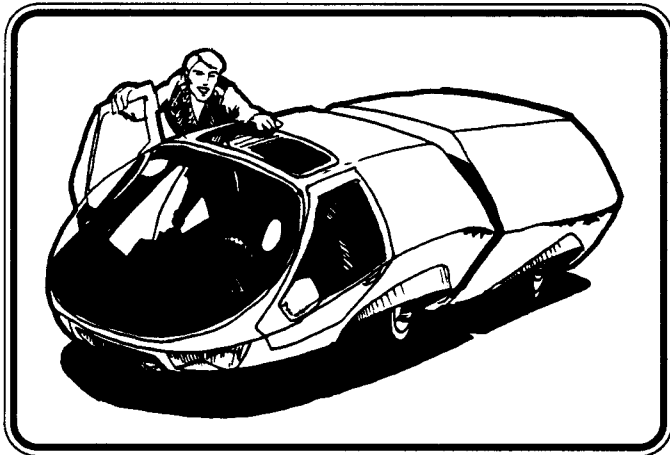
Robotic remotes are created in any size and function. Most have Class C AI units and are used for an amazing number of jobs and services. A remote may be as small as a house cleaning litter mouse to the size of a massive mining vehicle or a human sized cargo loader. COST 500d's - 200,000 t's



VEHICLE, ARCHAIC

LENGTH: 094" TANK: Hay **ARMOR**
 WIDTH: 034" MPG: - WindScreen -
 HEIGHT: 057" RANGE: - Wheels -
 SPEED: 25 mph WATER: - Top & Body -
 WEIGHT: 0900 lb PASNG: 1 Structure 250
CARGO: 1 Pilot, 1 Passenger or 250 lbs Cargo

The work version is basically a cargo hauling animal, with a limited hauling capacity.



VEHICLE, GROUND CAR

LENGTH: 194" TANK: 10g **ARMOR**
 WIDTH: 067" MPG: 70 WindScreen 20
 HEIGHT: 054" RANGE: 700 mi Wheels 48
 SPEED: 40 mph WATER: 01g Top & Body 15
 WEIGHT: 2000 lb PASNG: 03 Structure 1500
CARGO: 1 Pilot, 3 Passengers or 600 lbs Cargo

From the efficient alcohol burning vehicles to the gasoline burning classics, these are the vehicles of 2448. While mass transit is cheap and available, many prefer their own vehicles.

Senica Niagara Corporate

Tucholka @ AOL.COM

FUSION PUP II®

The Full Fusion Generator for the Home or workplace.
 A gallon of Water can be a year of household Energy

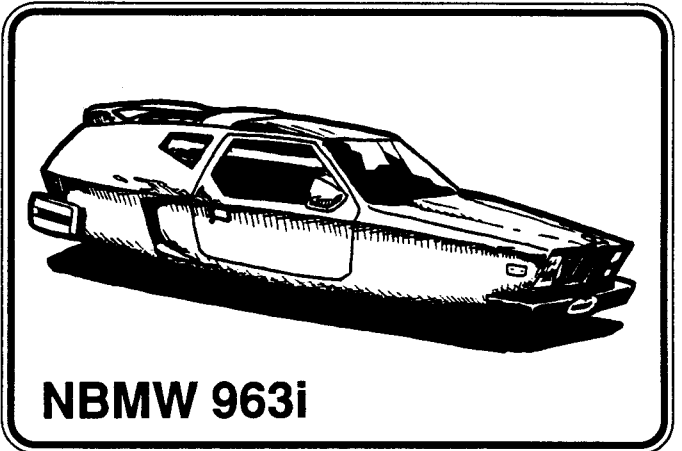


9600 d's Suggested Retail Price

VEHICLE, TRUCK

LENGTH: 194" TANK: 20g **ARMOR**
 WIDTH: 077" MPG: 25 WindScreen 20
 HEIGHT: 075" RANGE: 500 mi Wheels 28
 SPEED: 60 mph WATER: 01g Top & Body 25
 WEIGHT: 6000 lb PASNG: 1 to 6 Structure 2200
CARGO: 1 Pilot, 6 Passengers or 2000 lbs Cargo

The work version is basically a cargo hauling Mini-Van with a cargo bed length of 7 feet.



VEHICLE, HOVER CAR

LENGTH: 214" TANK: - **ARMOR**
 WIDTH: 067" CHARGE: 20 min. WindScreen 20
 HEIGHT: 051" RANGE: 1000 mi Wheels -
 SPEED: 90 mph WATER: 01g Top & Body 15
 WEIGHT: 1100 lb PASNG: 03 Structure 1200
CARGO: 1 Pilot, 3 Passengers or 600 lbs Cargo

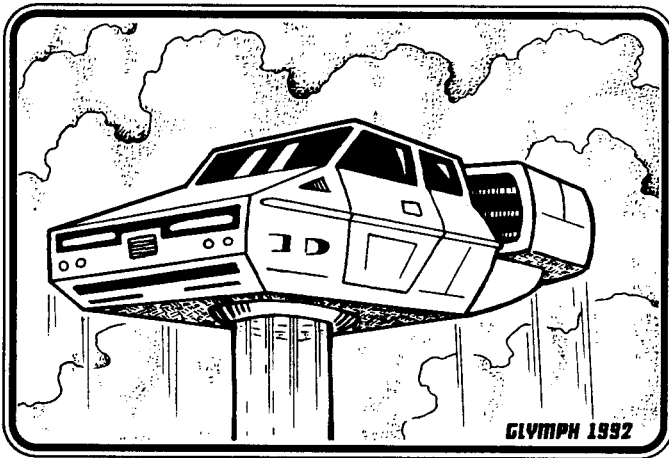
Latest on the roads are Mag-Lev vehicles operated by computer AI. Computer operated on most Mag Lev freeways and city streets. Not a true flying vehicle.



VEHICLE, ATV JEEP / CRAWLER

LENGTH: 310" TANK: 110g **ARMOR**
 WIDTH: 104" MPG: 25 WindScreen 40
 HEIGHT: 114" RANGE: 2700 mi Wheels 28
 SPEED: 60 mph WATER: 50g Top & Body 25
 WEIGHT: 4000 lb PASNG: 14 Structure 1500
CARGO: 1 Pilot, 14 Passengers + 8750 lbs Cargo

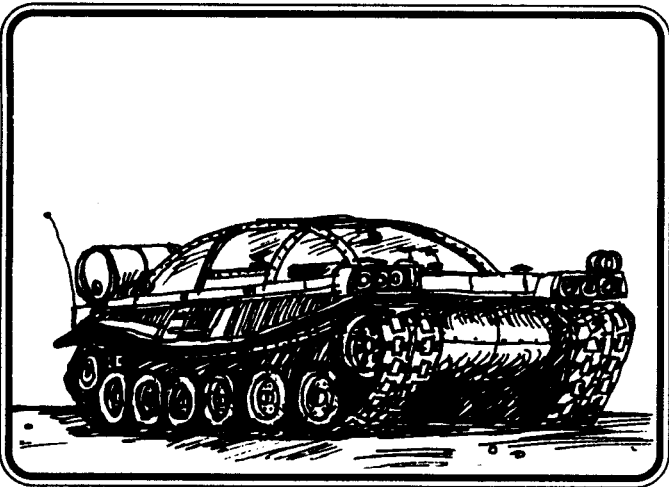
The work version is basically a cargo hauling truck, with a hauling capacity of 4.375 tons (8750 lbs). Common for Planetary exploration in flatter areas.



VEHICLE, ZERO PHASE

LENGTH: 174" TANK: - ARMOR
 WIDTH: 074" CHARGE: 020 min. WindScreen 40
 HEIGHT: 48" RANGE: 6700 mi Wheels -
 SPEED: 500 mph WATER: 02g Top & Body 125
 WEIGHT: 3000 lb PASNG: 04 Structure 1500
 CARGO: 1 Pilot, 04 Passengers +880 lbs Cargo

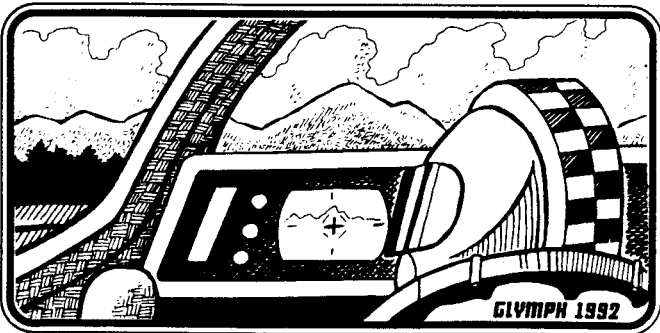
The Electric Fusion Grav Car used for planetary exploration. Can hover, fly, and achieve orbit with a little luck.



VEHICLE, CRAWLER

LENGTH: 270" TANK: 100g ARMOR
 WIDTH: 114" MPG: 20 WindScreen 80
 HEIGHT: 073" RANGE: 2000 mi Treads 128
 SPEED: 40 mph WATER: 20g Top & Body 225
 WEIGHT: 9000 lb PASNG: 06 Structure 1500
 CARGO: 1 Pilot, 06 Passengers +6850 lbs Cargo

The average hostile environmental crawler with a sealed environment. May be Fusion Electric Powered.



VAC SUITS

EMERGENCY
 HELMET 10
 CHEST & JOINTS 12
 BACKPACK 20+
 BOOTS 10
 SUIT & GLOVES 10
 SUPPLY A-F
 RESERVE a

LIGHT
 HELMET 16
 CHEST & JOINTS 18
 BACKPACK 30+
 BOOTS 20
 SUIT & GLOVES 15
 SUPPLY A-F
 RESERVE a

STANDARD
 HELMET 29
 CHEST & JOINTS 30
 BACKPACK 45+
 BOOTS 30
 SUIT & GLOVES 19
 SUPPLY A-F
 RESERVE b

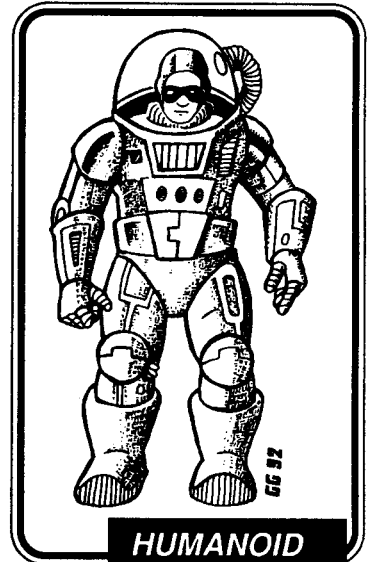
HEAVY
 HELMET 45
 CHEST & JOINTS 38
 BACKPACK 65
 BOOTS 50
 SUIT & GLOVES 29
 SUPPLY A-F
 RESERVE B

EXPLORATION
 HELMET 70
 CHEST & JOINTS 50
 BACKPACK 90
 BOOTS 75
 SUIT & GLOVES 69
 SUPPLY A-F
 RESERVE c

POWERED VAC ARMOR
 HELMET 190
 CHEST & JOINTS 175
 BACKPACK 190
 BOOTS 125
 SUIT & GLOVES 160
 SUPPLY A-F
 RESERVE c

AIR SUPPLY	USE
A Tourist	20 hrs.
B Light	40 hrs.
C Work	72 hrs.
D Heavy	06 days
E Exploration	10 days
F Recirculating	01 year

AIR RESERVE
 a 10 +d10 Minutes
 b 20 +d10 Minutes
 c d4 Hours +d10 Minutes



HUMANOID VAC SUIT

VAC SUITS

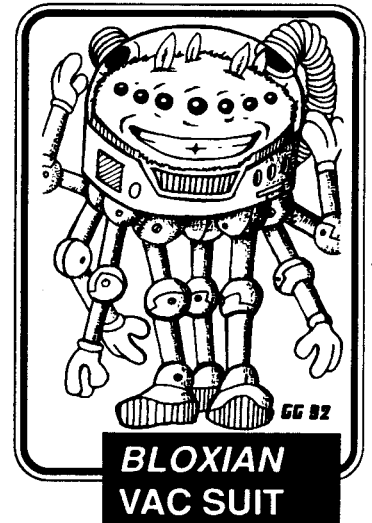
Vac Suits take many and varied shapes depending on the purpose and the race that uses them. All races known to ISCO use some equivlency of a vac suit. The four methane breathing races are constantly suited when dealing with Terrestrial temperature and pressure.

Shown here are six examples of standard Vac Suit varieties found on Starship or Station.

Suit types shown are listed by the general damage resistance to their armor from high velocity punctures.

Above is a standard transfer or work suit for non-hazardous areas.

Below is a Bloxian Vac Suit designed for heavier engineering work where punctures are common accidents.



BLOXIAN VAC SUIT

ROBOTICS

By 2448, robots and AI systems have found their way into virtually all aspects of life and leisure, however small.

By the late 20th century, crude man-like robots blundered along, while their industrial and household cousins began to talk to their creators. After the Computer and AI boom of the 21st century, progress and advancement of robotics slowed. Thousands of large and small manufacturers produced a wealth of robotic designs, much like the computer boom of the 1970's-2030's where frameworks and processors changed by the year. By 2040 most computers had become sophisticated frames with plug in modules and peripherals that could be plugged in. At this time robotics began its own boom and true to computer design and history of development, robots manufactured became obsolete nearly as fast as it rolled off the assembly line. By the late 2200's standardization became the rule between manufacturers.

Recently the booming economic growth of the 2400's has created a second boom of human-alien manufactured systems and nearly perfect humanoids.

General Rules

Robots are generally programmed by small cards that simulate a learned skill at a certain level. Each level of a skill takes a single card. Therefore, an industrial robot with a skill of 20 (or 100%) in electronic repair would have a bank of 20 cards that apply to that particular skill.

REMEMBER

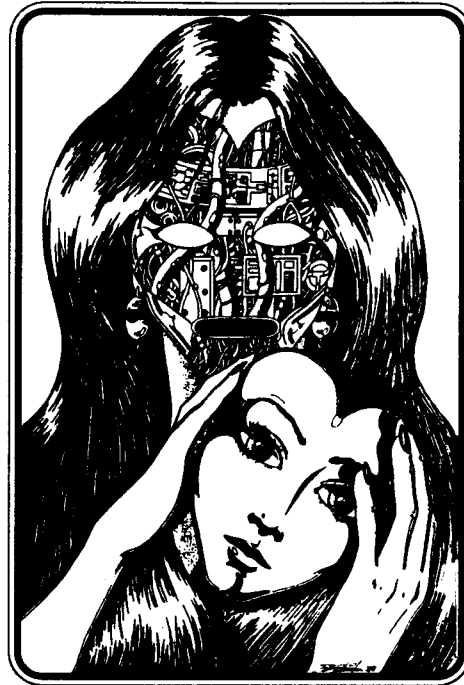
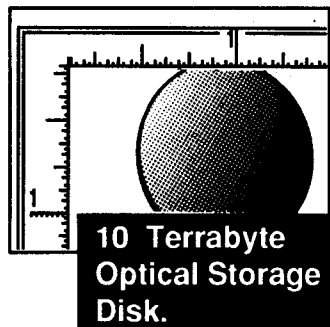
- 01 A missing or a defective skill card in a set or bank stops the robot's level of skill at that point.
- 02 All robots are programmed never to allow themselves to harm an intelligent being.
- 03 All robots will protect themselves until it violates the general rules of human and life preservation.
- 04 A good programmer can make a robot do anything he wants it to do and generally shoots the first two rules to hell.
- 05 A robot's function and design is often the designers or manufacturers whim. Many old designs are recombined with other parts to create odd but functional robots.
- 06 AI systems are sealed units programmed for basic function in the factory. After installation they are programmed for function and personality, if any.

STARSHIP COMPUTERS

Starship computers operate on this same general principal with a READER CPU stack module and a processor. The average ship has 1 to 20 of these units along with backups. All programs are held on 10 Terrabyte 1 inch optical storage disks. A Reader CPU holds up to 100 stacks of 100 program disks.

FTL NAVIGATION

Starship navigation to known stars always requires a program disk. When phasing to new worlds, a disk is always programmed during the trip. Disks can be erased in a complex process and reprogrammed with new data.



		Cost in d's		
WORK CLASS		New	Used	Disks
A	Basic Bot	5000	2000	040
B	Advanced Work Bot	25000	12000	100
C	Specialized Bot	7000	4000	060
D	Highly Specialized Bot	9000	3000	060
I	Heavy Industrial Bot	90000	50000	140
S	Security Bot	15000	9000	040

HUMANOIDS in d's

M	Menial Near-Humanoid	6000	3000	030
E	Human Likeness	11000	6000	060
M	Medical Assistant	75000	50000	120
P	Perfect Humanoid	100000	750000	540
E2	Pet Bots	1000	500	012
W	Work Humanoids	45000	30000	055

REMEMBER

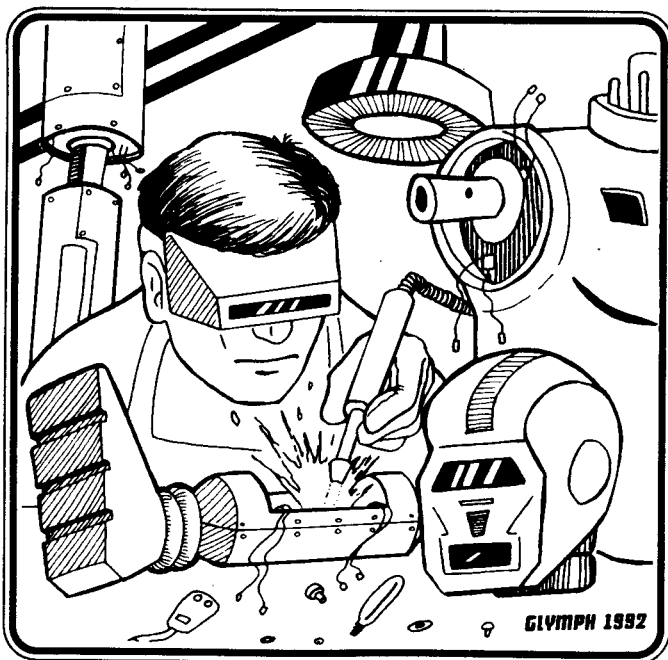
- 01 Programming disks measure 1" x .12"
- 02 Disks used in starships are specifically manufactured for toughness and reliability. Where a standard disk will fail, a starship programming disk will survive. They are compatible with home and porta computers.

CARD COST in d's		NEW	USED
CPU 100 Disk Module		2100	900
Computer Disk		001	25y
Computer Disk (Starship)		100	050
CPU Communication Disk		1000	900
Disk With Skill Level		5000	4500
Optics Disk & Sensor		2100	1900
Sensor & Processor Disk		1000	750
Sensor, Environmental		750	500
Touch Sensor & Disk		2300	2000
Taste Sensor Disk		8700	7500
Control Per 2 Wheels / Treads		1000	750
Control Hover		1500	1200
Control Per 2 Legs & Disk		750	500

CARD COST In d's	NEW	USED
Self Preservation Disk	500	400
Auto Chef Disks	500	450
Food Reconstitution Disks	500	450
Gyro Stabilizer	1800	1500
Battery (40 Hour Rechargeable)	750	500
Arm, Simple	500	400
Arm, Complex Motion	1200	1000
Hand, Simple	250	175
Hand, Complex	900	500
Speech, Mechanical	500	400
Speech, Modulated	700	500
Personality Disks AI (5)	2400	2000
Link to Mainframe	500	400
Link to Owner / Beeper	175	100
Strength (Per Point)	100	
Dexterity (Per Point)	100	
Reprogramming Station	4000	3500
STARSHIP		
Starship Computer Bank	100000	90000
Preprogrammed Nav Disks	4000	3500
Phase Computer Control	750000	365000
Nav Pack (110 Near Stars)	120000	95000
Ships Systems (340 Card Set)	230000	200000
General Info Library	1000	500
Historical Library	5000	1000
Ship Maintenance Disks (55)	60000	50000
Autopilot Starship Disks (10)	15000	10000
Autopilot Shuttle Disks (10)	15000	10000
Autodoc Medical Disks		
Per Race Type Disks (420)	150000	110000
Personal Data (Individual)	1000	

EXPANSION

The list can be endless, with imagination and a general knowledge of what you need to create a robot. Have fun as you build your own from salvage. Robots are often controlled by the whim of the Game Master, who will find new and creative ways to eliminate them...



FRENNER

GENERAL PURPOSE ROBOTIC ASSISTANT

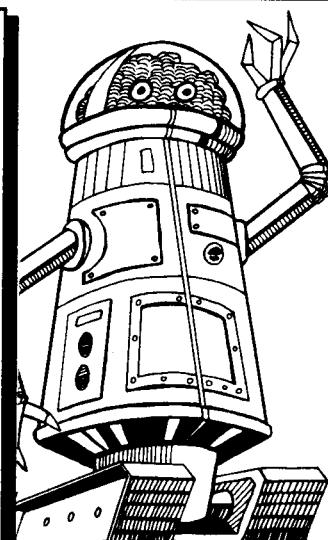
Model 428f

Shown is a model designed for use by Whurr and Zumwol.

9600 d's
Suggested Retail



FRENNER ROBOTICS



Ben, Bells & Quag

With a little skill, and a lot of junk, Bells fixes an old cleaning robot and watches it roll down the passageway. Looking at the last disk she forgot to replace, she slowly translates the words:

AUTO PRESERVATION DISK BRYOX 234-544-0 BR

Bells looks up just in time to see the bot roll into an open elevator shaft and plunge to its retirement.

CRITICAL DAMAGE

When robots are damaged, roll a d100 on the table below. General structure for robots can be 20 to 5000 + points for larger units.

- 01-50 **GENERAL STRUCTURAL DAMAGE**
Damages exterior, paint, etc...
- 51-75 **MOTIVE DAMAGE**
Reduces speed by d100% of the maximum or alters directional control
- 76-85 **POWER DAMAGE**
Reduces battery life by d100%
- 86-90 **MANIPULATOR DAMAGE**
Drops AGL or STR by d10 points.
- 91-95 **MAINFRAME LINK DAMAGE (IF ANY)**
Severs any direct communication with a mainframe computer or owner control.
- 96-97 **MEMORY CARD DAMAGE**
Damages or shocks that limits the robots function or memory. May destroy AI system. This scrambling may also affect programming and combine program parameters to create a bizarrely functioning robot
- 98 **ACCESSORY DAMAGE**
Damages or removes accessory tools or weapons.
- 99 **SENSOR DAMAGE**
Robot is effectively blinded or sensor impaired to d100% of normal function.
- 00 **LOGIC CONTROL DAMAGE**
Logic/memory control damaged, robot will perform less than perfectly or illogically until repaired.

VEHICLE WEAPONS

Along with military and civilian weapons, many vehicles used for colonization or exploration carried fittings for rocket pods and other heavier weapons due to the threat of highly belligerent wildlife or other political reasons.

Missile Pods

The missile pod carries up to twenty-four 1.5 inch rockets in a pod that can be fired manually or electronically. Range of the rockets is 2500 feet. Use tables for 40mm shells in the weapons section for damage. See Also (Pg 157)

Destruct

All vehicles are equipped with a manually operated destruct that will ignite a thermite charge located in the frame of the vehicle. This destruct can be set for a time delay of up to 3 hours. Blast 1350 points Burn 20d10.

Modifications

Additions built by vehicle owners can be many and varied due to situation or general whim. These include:

- | | |
|--------------|-------------------------|
| 01 Mines | 06 Oil Sprayers |
| 02 Obstacles | 07 Missile Pod |
| 03 Ejection | 08 Body Electrification |
| 04 Smoke | 09 Flame / Gas Ports |
| 05 Paint | 10 Silent Alarms |

AIRCRAFT WEAPONS

Most vehicle weapons can be mounted in IDET aircraft with a minimum amount of work.

For aircraft, the vehicle-mounted missile pod is replaced by a larger version that can carry up to 24 missiles with twice the power and range of the listed 40mm shells. Such pods are unavailable for ultralight aircraft.

- | | |
|---|--|
| 01 Missiles | |
| 03 Drop Flares | |
| 05 Bombs, Gas, Napalm, or Explosive | |
| Specially designed for air or ground detonation, it works like any of the 40mm type rounds listed in the Launcher section. (See Also Pg. 157) | |
| 06 Lasers or Exotic Energy Weapons | |

Equipment Failure

Equipment failure is one of those sad and unjust facts of a character's life. Heavy use, lack of maintenance, or rough handling can often turn a lifesaving object into a useless piece of trash at a critical moment.

REMEMBER

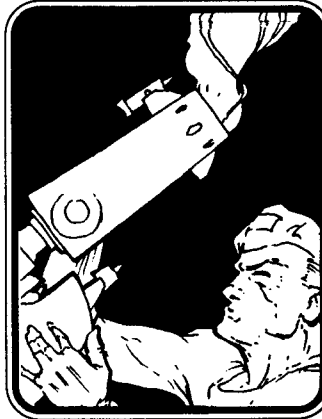
- | | |
|----|---|
| 01 | Use this table only if there is any reasonable doubt that an object will not function properly. |
| 02 | Total all possible modifiers. |
| 03 | Don't over use it! |

GM's Notes

This is to be used sparingly by the GM. Do not check simple items or obvious pieces of equipment that are not likely to break down. F is damage diagnosis time, R the time needed to repair in minutes. S means use a related skill.

Modifiers

- | | |
|---------------------------|-----|
| Just Out of Package | -05 |
| Maintained Occasionally | -10 |
| Quality Manufacturer | -15 |
| Maintained Often | -20 |
| Constantly Maintained | -25 |
| Built by Lowest Bidder | +05 |
| Maintenance Ignored | +10 |
| Total lack of Maintenance | +15 |
| Dropped, or Slammed | +20 |
| Incompetent Repair | +25 |



BREAKDOWN

- | | |
|-------|---------------------------------------|
| 01-50 | No Damage |
| 51-75 | Light Damage
F6m R6m |
| 76-85 | Minor Damage
F10m R10m |
| 86-95 | Heavy Damage
F10m R20m S |
| 96-98 | Major Damage
F10m R45m S |
| 99 | Critical Damage
F20m R60m S |
| 00 | Forget It! |

AI & COMPUTER FAILURE

Any number of things can affect AI systems and delicate electronics. Ionizing radiation, impact, impure manufacture, and old age can be factors that still occasionally plague 24th century electronics. Most components simply fail without spectacular results. AI's simply become infuriatingly stupid or loose their programming before failing entirely.

Modifiers

- | | | | |
|-------------------------|-----|--------------------------|-----|
| Just Out of Package | -05 | Maintenance Ignored | +10 |
| Maintained Occasionally | -10 | Ionizing Energy Exposure | +15 |
| Quality Manufacturer | -15 | Dropped, or Slammed | +20 |
| Maintained Often | -20 | Incompetent Repair | +25 |
| Constantly Maintained | -25 | Extreme Age | +10 |
| Built by Lowest Bidder | +05 | | |

COMPONENT BREAKDOWN

Use these general guidelines for finding and repairing electronic problems.

- | | |
|-------|---|
| 01-50 | STILL FUNCTIONS |
| 51-75 | Light Damage, Easy Component Repair
F=d10m R=d10m |
| 76-85 | Minor Damage, Easy Component Replacement
F=d10+5m R=2d10m |
| 86-95 | Heavy Damage, Replace Components
F=d10+10m R=3d10m S |
| 96-98 | Major Damage, Replace Components
Find d4 more Problems
F=d10+10m R=4d10m S |
| 99 | Critical Damage, Replace Components
Find d4+2 more Problems
F=d10+15m R=6d10m S |
| 00 | BEYOND REPAIR
Replace Entire System, Light Fiber, and d4 |

PSIONICS

PSI is natural energy that is channeled by the mind.

For the FTL universe, psionic talents are a dangerous reality. Known to exist for many centuries, these powers of the mind are common across space. Psionic talents are also acquired by many who have journeyed in space or by close proximity to Starship Phase Fields. After a year of accumulated time in Phase (Star Travelling), give each character a roll for PSI talent manifestation. Check again every 3 years.

WHO HAS PSI?

The talent for PSI is either genetic or induced. Inheritance gives the best method for developing a talent without vicious side effects. Drug or technologically induced PSI often radically changes the mind and gives a chance of dangerous talents, if it does not simply kill the victim. All characters have a once in 3 years chance of having PSI. Roll a d100 and consult the table below.

CHANCE OF PSI	CHANCE OF PSI	NUMBER OF ABILITIES
NATURAL PSI TALENT	04%	d4
PARENT WITH PSI	06%	d4
ANCESTOR WITH PSI	08%	d4
BORN ON A STARSHIP	10%	d4

RANDOMIZE PSI TALENTS

If you score under the needed roll, go to the PSI Talent table and roll a d20 until you have your abilities. Re-roll any d20 rolls over 16. If your roll was within 2 points of what you needed, your character is a 'Latent' PSI. See Latent PSI on page 099. If you rolled a 99 or 00 see the ANTI PSI tables on page 099. Always write your d100 PSI roll on your character sheet for later reference.



INDUCED PSI

The following are the less than perfect ways that PSI can be induced in a character. This can be by design or accident. The actual attempted causing of PSI gives a roll on the **Induced PSI Result** table below. Much of this is the GM's decision.

CHANCE OF PSI	CHANCE OF PSI	NUMBER OF ABILITIES
MINDSHOCKED LATENT	05%	d4
DRUG INDUCED PSI	10%	d4 +1
CHEMICAL EXPOSURE	02%	d4
RADIATION EXPOSURE	03%	d4 +1
TECHNOLOGICALLY INDUCED	20%	d4 +2
ELECTRICAL TRAUMA	02%	d4
BRAIN IMPLANT DEVICE	25%	d4 +3
ACCIDENTAL BRAIN DAMAGE	02%	d4
VIRAL INDUCED (Uncommon)	02%	d4
ALIEN TRANSFERENCE	15%	d4
PSI DRUG (BAD)	05%	d4

PSI INDUCEMENT DANGERS

The one catch to induced PSI is the required roll on the chart below. When Deathshock to the character occurs in this circumstance, treat resuscitation of the character like any other situation where lifesaving techniques are required. Due to the unusual nature of PSI inducement, use any resuscitation skills with a multiplier of (.50).

INDUCED PSI RESULT

01-50	NO EFFECT (45% chance of Deathshock)
51-75	NO EFFECT (Also reduces INT, WIZ, and all Skill Levels by half. Multiply them by .50 by using the Number Multiplier Chart in the back of the book.)(See Also Pg. 178)
76-85	INDUCES BORDERLINE PSI (40% chance of a Deathshock)
86-95	SUCCESS (20% chance of a Deathshock)
96-98	SUCCESS WITHOUT PROBLEM
99-00	DEATH

REMEMBER

- All PSI talents start at a skill level of d4. All Induced PSI talents start at a skill level of d4 +4 .
- All Natural PSIs such as aliens like the Barlow, Krelvin or Trel start at 20 and have no power cost for reasonable use.
- PSI talent skill levels are increased with skill points as any other skills.
- After the initial set up, additional PSI talents cannot be taken.
- Any of the sub-classes of the talent may be used by the PSI if he or she has the power.
- PSI and magic are very separate and distinct energies. They cannot be combined for use. A character cannot have talents in both. (See Also Bureau 13 TTS 3001 or Hardwired Hinterland TTS 4500)

GAME MECHANICS OF PSI ABILITY

Once a character has a talent, the entire category under the listing is now open to use as long as the character has the necessary Working PSI or WKP to power the sub-category's cost.

WORKING PSI

WKP is the base amount of personal energy a character can generate for PSI use. With each successful or unsuccessful use of psionic ability, an amount of energy is lost that is later regenerated. Each level of experience a character gains gives him an additional d10 +2 WKP points. Your initial score starts as follows.

$$\text{CONSTITUTION} + (20) = \text{Working PSI (WKP)}$$

MENTAL COORDINATION

A second new statistic used by each active PSI is MCD or Mental Coordination. This is found by adding your Intelligence score to Agility and dividing the result by 2. Round fractions down. Like other statistics, MCD can be improved, but it has double the development cost of a normal statistic increase.

$$\frac{\text{INTELLIGENCE} + \text{AGILITY}}{2} = \text{MCD} = \text{Mental Coordination}$$

MCD and WKP can be temporarily increased by a limited number of factors. These include PSI TAP and PSI LINKING skills.

RECOVERING WKP

The easiest way to recover WKP is to rest. This may also be modified by situation or area. Follow these general guidelines.

General Rest	d4	WKP Points Per Hour
Sleep	d10	WKP Points Per Hour
Stunned Unconscious	1	WKP Point Per Hour

OPTIONAL MODIFIERS

Light Meditation	+02	WKP Points Per Hour
Heavy Meditation	+03	WKP Points Per Hour
Sleep	+04	WKP Points Per Hour

OPTIONAL

ACCELERATED RECOVERY RATE

Roll a d100 for any natural modifiers on the recovery of WKP ability. In some instances special individuals are able to recover WKP at an accelerated rate. Only roll once on this table.

RATE		RECOVERY
01-95	NORMAL RATE	x1.00
96-97	ACCELERATED RATE	x1.25
98-99	PHENOMENAL	x2.00
00	LIGHTNING FAST	x4.00

USING A TALENT

Using a PSI talent is a simple d100 roll under your chance. The talent's chance is found as follows:

SKILL LEVEL + MCD +	OPTIONAL MODIFIERS	=	Chance of Success
a	b	c	Time Modifier
		d	Standard Modifiers

(a) SKILL LEVEL

Use each level of skill as 5% chance of success.

(b) MCD

Add your MCD as a flat percentage number.

OPTIONAL MODIFIERS

The optional modifier most frequently recommended for game play is the PSI Time Modifier. This ranges from the hip fired use of the talent to the long-prepared use. The **PSI/UTILITY SHEET** from the utility section of this book includes this information for easy play.

(c) OPTIONAL PSI TIME MODIFIER

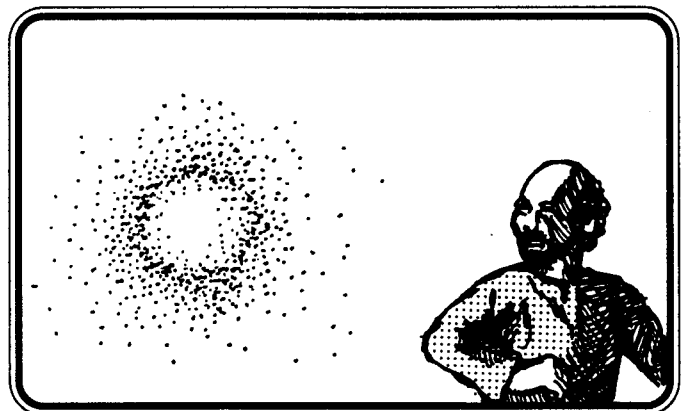
A: Snap Use of Talent Without Proper Time	-30
B: Half Necessary Time Taken to Use	-20
C: Three Quarters Necessary Time Taken to Use	-10
D: Full Time Necessary Taken to Use	n/a

(d) OPTIONAL STANDARD SKILL USE MODIFIERS

These are the standard skill difficulty modifiers from pages (021-022). Remember that all of these modifiers are optional for the player's and GM's use.

REMEMBER

- 01 Any talent listed under a heading can be used as long as the character has enough WKP to power the use.
- 02 PSI talents are used like any skills. The following list of talents below may be modified by the GM.
- 03 Each talent has a specific WKP cost and a time needed to begin use of the talent. While the time can be varied, the WKP cost cannot.
- 04 Time (T=) is measured in Minutes (m) Hours (h) Days (d) and Weeks (w).
- 05 WKP cost needed to power talents is the code (C=).
- 06 With the GM's approval, some talents are reversible.
- 07 With GM approval a PSI talent can be designed by the player as long as it is limited.



PSI ABILITY INDEX

Randomly roll a d20 for areas of PSI Talent. Any roll of 17 or higher is ignored and re-rolled. Only INDUCED Psionics are able to use the full d20 roll.

- | | |
|-------------------|--------------------|
| 01 TELEPATHY | 11 HEALING |
| 02 REMOTE VIEWING | 12 SELF CONTROL |
| 03 POSTCOGNITION | 13 MIND CONTROL |
| 04 PRECOGNITION | 14 SPECTRALKINESIS |
| 05 WILD TALENT | 15 PSI SHIELDING |
| 06 EMPATHY | 16 PSI TAP |
| 07 TELEKINESIS | STOP |
| 08 PYROKINESIS | 17 ATTACK |
| 09 CRYOKINESIS | 18 LEECH |
| 10 PSI LINKING | 19 TELEPORT |
| | 20 MIND TRANSFER |



PSI TALENTS

PSI TALENT: TELEPATHY 01

Telepathy is the talent of mind-to-mind communication over a distance. Range of the ability is 10 miles as long as the PSI has a lock on a mind. Without a lock, the distance is 1 mile. With a lock the range extends to 100 miles. Each +1 WKP added gives additional 10 miles of range. Duration of talent is 10 minutes or until stopped by the user.

- * SEND TO TELEPATH C=05 T=01m
- * SEND TO NON-TELEPATH C=10 T=01m
- * LISTEN TO CONVERSATION C=25 T=01m
- * LOCK ON SINGLE MIND C=15 T=02m
- * SEND MESSAGE TO GROUP C=25 T=01m
- * SCAN OWN MEMORY C=25 T=02m
- * SCAN OTHER'S MEMORY C=30 T=05m
- * SCAN RESISTANT MIND C=50 T=10m
- * SCAN ALIEN MIND C=85 T=15m
- * SCAN FOR TRUTH C=20 T=01m

PSI TALENT: REMOTE VIEWING 02

The ability to see what is happening now at a close or distant location. Over the initial cost, each additional point of WKP adds 100 miles to the range. The view lasts d100 seconds and can be subject to visual distortion as modified by the GM.

- * WHAT'S HAPPENING NOW C=25 T=05m
- * OVERVIEW OF AREA C=15 T=05m
- * VIEW CONTROL C=25 T=05m
(Allows motion of viewpoint.)

PSI TALENT: POSTCOGNITION 03

The ability to see what has happened before in a specific area. Over the initial cost, each additional point of WKP extends the ability one year, month, day, or hour into the past. The duration of viewing is d100 seconds.

- * WHAT HAPPENED BEFORE C=30 T=05m
(Within 48 hours.)

PSI TALENT: PRECOGNITION 04

This is a talent that allows the user to see what could happen in the near future. This may be used for an individual or a small area. Every 5 points of WKP used over the initial cost, extends the range 1 hour, day, month, or year. This future flash of insight lasts d10 + 2 seconds. Because time is infinitely in flux, precognition is not always accurate and the outcome of situations can change by the minute.

- * WHAT CAN HAPPEN C=30 T=10m
- * WHAT CAN HAPPEN IF C=50 T=15m
(A specific action to change a variable situation.)

PSI TALENT: WILD TALENT 05

Most useless and dangerous of the normal PSI talents is the Wild or uncontrolled talent. This ability usually manifests during stress as a random use of PSI talent. The user's skill in Wild Talent ability is primarily used to keep the talent under control, instead of firing off the ability. In some cases the user may wish to use it, and attempts it as any other PSI talent. Results are always varied and mostly obnoxious. Use a full d20 roll when randomizing its manifestation. Below is a list of possible modifiers to induce a Wild Talent.

	CHANCE TO MANIFEST	CHANCE TO CONTROL
STRESS	+10	-05
EXTREME STRESS	+25	-10
LIFE THREATENING SITUATION	+50	-15
FEAR	+15	-05
TERROR	+30	-15
PAIN	+25	-10
AGONY	+50	-20
EMOTIONAL EXCITEMENT	+20	-10

WHO CONTROLS WILD TALENT?

Wild Talent is under the control of the GM or randomized off these charts. It always will find the necessary WKP to work, even if it drains it from a nearby psionic. The user of this skill always knows the talent is about to manifest.

- * TRIGGER WILD TALENT C=05 T=01m
- * CONTROL WILD TALENT C=75 T=01m
(Gives the chance to choose what talent manifests.)
- * STOP WILD TALENT C=25 T=02m
- * STOP OTHER WITH WILD TALENT C=50 T=01m
- * CHANNEL WILD TALENT C=40 T=02m
(Gives another PSI a power boost equal to the WILD TALENT users WKP or the larger source the Talent may tap into.)
- * SHIELD WILD TALENT C=45 T=02m
(Shields user or other from WILD TALENT effects.)

PSI AND SOCIETY: 2448

PSI is an integral part of society by 2448. Businesses, shops, and schools are dedicated to it. Having emotional trouble or lost an item? A PSI can help you.

Having a PSI talent is a social gateway to special training and governmental bonus for registered PSI's. Most Psionics go into Industrial, medical, or social service.

Unregistered or drug acquired PSI's who are unregistered are forced to find work in the underworld.

PSI SHIELDS

In 2410 researchers discovered that a fine tuned ultra low frequency transmitter could broadcast a lower band signal and block many of the mind talents. These mini-shields have a range of 10 feet and annoy psionics by blocking PSI talent and making them itch.



PSI TALENT: EMPATHY

06

Empathy is the ability to read emotion and alter feelings in individuals. This talent borders on Telepathy, though no concrete information may be gained by its use. Duration is up to 10 minutes and range is line of sight.

- * FAST EMOTIONAL IMPRESSION C=05 T=01m
- * READ EMOTION C=15 T=01m
- * DETECT EMOTIONAL PROBLEM C=20 T=01m
- * PROBE DISTURBED INDIVIDUAL C=25 T=05m
(A d10 second flash of what disturbed the individual.)
- * PROBE HIDDEN EMOTIONS C=25 T=05m
- * EASE EMOTION C=30 T=02m
- * BLOCK EMOTIONAL STATE C=35 T=02m
- * PROJECT ASSURANCE C=30 T=02m
or FRIENDSHIP

PSI TALENT: TELEKINESIS

07

Telekinesis is the ability to lift and control the flight of objects. After the initial cost, each additional point of WKP added gives the ability to lift an additional 5 pounds. The duration of this skill is 10 minutes, extended an additional 5 minutes per each additional point of WKP used. Range is line of sight.

- * LEVITATE C=20 T=01m
(Under 10 pounds, vertically only.)
- * PUSH / PULL C=20 T=01m
(Under 10 pounds, horizontally.)
- * CONTROLLED FLIGHT C=55 T=05m

PSI TALENT: PYROKINESIS

08

The ability to create an area of heat on the surface of an object. Duration of the talent is a second, unless the spark or flame catches flammable material on fire.

- * WARM C=20 T=01m
(Warms an 8 cubic inch area up to +20 degrees.)
- * BOIL C=40 T=02m
(Warms an 8 cubic inch area up to +250 degrees)
- * SPARK C=25 T=01m
- * FLAME C=30 T=01m
(Creates a d4 point small flame. Each additional point of WKP used increases the burn damage by 1 point. See Also Pg. 107)
- * IGNORE HEAT C=25 T=02m
(Allows user to ignore temperatures up to 700 degrees for the span of 1 hour.)

PSI TALENT: CRYOKINESIS

09

The ability to create an area of cold on the surface of an object. After the initial cost, each point of WKP added decreases the temperature of the area by 5 degrees.

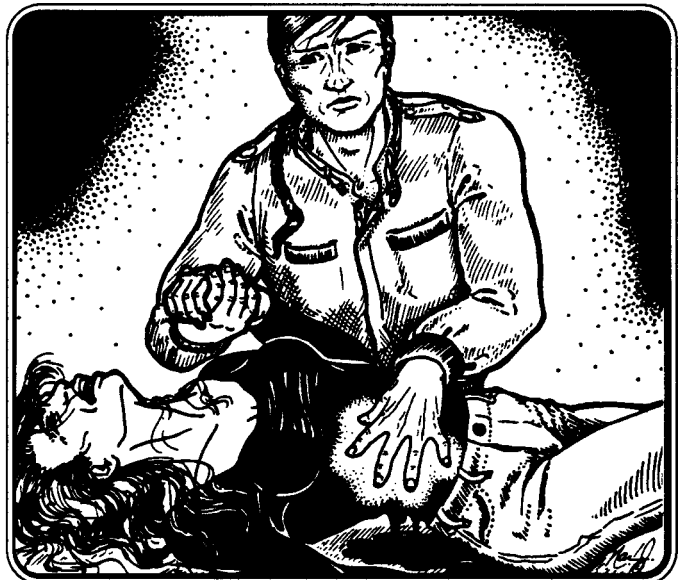
- * CHILL C=25 T=01m
(Chills an 8 cubic inch area up to -20 degrees.)
- * FROST C=35 T=01m
(Chills an 8 cubic inch area up to -50 degrees.)
- * FREEZE C=70 T=02m
(Freezes an 8 cubic inch area solid.)
- * IGNORE COLD C=10 T=02m
(Allows user to ignore cold damage for 1 hour.)

PSI TALENT: PSI LINKING

10

Psionics may share their WKP by linking their minds. This talent is a direct connection between individuals where WKP becomes a pool for talent use. Range of this ability is limited to a 10 foot maximum distance between Psionics.

- * VOLUNTARY PSI LINK C=02 T=01m
- * INVOLUNTARY PSI LINK C=20 T=02m
- * BREAK PSI LINK C=02 T=10s
- * BREAK INVOLUNTARY PSI LINK C=15 T=01m



PSI TALENT: HEALING

11

Healing is the ability to reverse damage by contact with the victim of physical trauma. Healing can only aid limited cases of injury, and can not resuscitate the brain dead or re-graft a severed limb. After the initial cost, each additional 5 points of WKP will heal 1 point of WBD (hit point) or CON damage.

- * HEALING C=20 T=01m
(Heals d4 points of cuts/open wounds, or d4 cubic inches of scrapes, brushburns, or rash.)
- * BURN HEALING C=30 T=02m
(Heals 4 cubic inches. Turns third degree burns into second, second into first and first into mildly inflamed tissue.)
- * STOP BLEEDING C=35 T=01m
(Reduces any artery sever or blood loss table result by one number.) (See Also Pg. 135)
- * SLOW DEATH C=50 T=01m
(Ability to stabilize a dying person for d6 minutes. If the victim dies the PSI suffers a 5% chance of a deathshock.)
- * RESUSCITATE C=10 T=01m
(Adds a +05% chance to resuscitation a victim. Each additional point of WKP added increases this by 1%.)

PSI TALENT: SELF CONTROL

12

Self control gives the user control over his normally autonomic body functions. This ability can be extended to affect a non-PSI at double the WKP cost. Distance of use is touch and duration is generally 10 minutes.

- * RELAX BODY C=05 T=01m
- * REST INTO SLEEP C=10 T=02m
- * CONTROL HEART RATE C=15 T=30s
- * BREATH CONTROL C=20 T=30s
(d4 +4 minutes)
- * DIAGNOSE BODY DAMAGE C=20 T=01m
- * IGNORE STUN C=45 T=02m
- * IGNORE PAIN C=35 T=02m
- * SPEED REACTION TIME C=35 T=01m
(Speeds any AGL or DEX recovery rate by d4 points. Each additional 5 points of WKP used speeds AGL or DEX 1 additional point. See the ACTION BONUS on Pg. 09).
- * HEAL SELF C=15 T=01m
(Heals d4 points of cuts or small open wounds, d4 cubic inches of scrapes, brushburns, or rash.)
- * BURN HEALING C=25 T=02m
(Heals 4 cubic inches. Turns third degree burns into second, second degree into first and first degree into inflamed tissue.)
- * STOP BLEEDING C=25 T=01m
(Reduces artery sever or blood loss table result by one number.) (See Also Pg. 135)
- * SLOW DRUG EFFECTS C=35 T=01m
(Ability to lessen, by half, a drug effect for d6 hours. May include toxin effects.)



PSI TALENT: MIND CONTROL

13

This is the ability to enter and change the thinking process and physical coordination of an individual. Most of these uses have a duration of 10 minutes.

- * SUGGESTION C=10 T=01m
(Plants a thought.)
- * CHANGE THOUGHTS C=25 T=01m
(Changes a quick decision or makes a strong-minded individual take a few seconds to reconsider an action.)
- * MIND BLANK C=25 T=01m
(Blanks a mind for d10 +2 seconds. May be extended by 1 second for every additional 5 WKP used.)
- * CONTROL MINOR BODY FUNCTION C=25 T=05m
(Used to create an itch, blink, or other minor function.)
- * PHYSICAL GAIN C=35 T=05m
(Gives a +d4 on any physical statistic for 1 hour.)
- * CONTROL SENSATION C=25 T=05m
(Controls what is felt, seen, tasted, etc.)
- * CONTROL EMOTION C=35 T=05m
(Controls the intensity of feelings.)
- * CONTROL LIMB C=35 T=05m
(Takes control of a single limb.)
- * CONTROL MAJOR BODY FUNCTION C=50 T=10m
(Controls heartrate, respiration, digestion, etc.)
- * CONTROL MEMORIES C=75 T=20m
(Creates mental blocks, recall, selective amnesia etc.)
- * CONTROL BODY C=95 T=20m
(Enslaves a physical body's function to command.)
- * WAKE FROM SLEEP C=05 T=01m
- * REST C=10 T=02m
- * EASE INTO SLEEP C=20 T=02m
- * PUSH INTO SLEEP AGAINST VICTIM'S WILL C=50 T=04m
- * CREATE DREAM C=15 T=05m
- * LOOK INTO DREAM C=10 T=05m
- * ALTER DREAM C=20 T=01m
- * PARTICIPATE IN DREAM C=30 T=01m
- * COMMUNICATE BY DREAM C=35 T=10m
- * STOP NIGHTMARE C=20 T=01m
- * SLEEPGUARD (PSI) C=10 T=01m
(Duration is until the sleeper wakes.)
- * CONTROL MIND C=75 T=40m
(Controls human mind totally without harm. Lasts for 24 hours per each additional point of WKP used.)
- * FREE CONTROLLED MIND C=75 T=10m
- * STUN C=40 T=01m
(Use the stun table on page 137. Each additional 5 points of WKP reduces the chance by 10%)
- * DEATHSHOCK C=95 T=01m
(A burst that creates a 5% chance of a Deathshock. Each additional 5 points of WKP added gives a +1% on the chance to kill. Using this gives a flat 5% chance of feedback and a Deathshock for the PSI user.)

PSI TALENT: SPECTRALKINESIS 14

Spectralkinesis is the talent that affects the spectrum of light. This talent creates a ball of light 6 inches in diameter that has a duration of 10 minutes extended 10 minutes per each additional 5 points of WKP used.

- * LIGHTFLASH C=10 T=30s
- * GLOW C=15 T=30s
- * BALL OF LIGHT C=20 T=30s
- * DAYLIGHT C=40 T=01m
(creates daylight in a 20' x 20' area)
- * BRILLIANT BALL OF LIGHT C=35 T=01m
- * MOVE BALL OF LIGHT C=15 T=01m
- * COLOR LIGHT C=10 T=01m
- * SHAPE LIGHT C=20 T=02m
- * CRAFT LIGHT C=40 T=05m
(creates pictures, faces, animated images, etc.)
- * MULTIPLE COLORS C=25 T=10m
(allows crafting of colors and shades)

PSI TALENT: PSI SHIELD 15

PSI Shield attempts to stop hostile PSI action against an individual or group. The effects of shields last for 30 minutes and are extended 5 minutes per each additional point of WKP used to power them. Technical devices can also be used to shield from PSI energy. These devices can not be broken through by natural means.

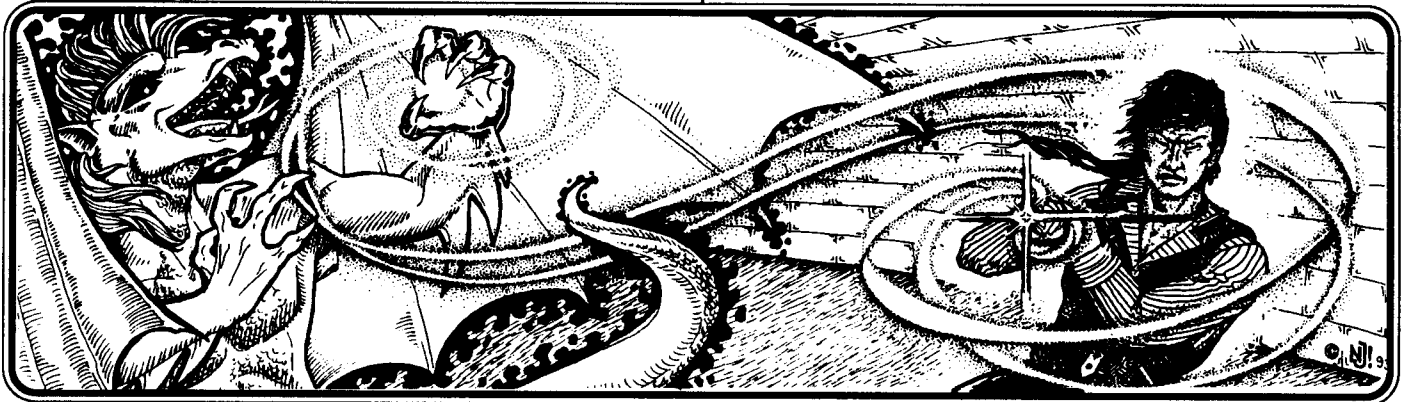
- * SHIELD FROM MIND PROBE C=45 T=30s
- * SHIELD GROUP OF MINDS C=50 T=01m
- * BREAK THROUGH MIND SHIELD C=95 T=05m
- * SHIELD FROM PSI LINKING / TAP C=35 T=01m

WKP STORAGE RESULT

- 01-50 AS YOU EXPECTED
(Stores d10 +1 points of character's WKP)
- 51-75 BETTER THAN AVERAGE
(Stores d10 +05 points of character's WKP)
- 76-85 OUTSTANDING
(Stores d10 +10 points of character's WKP along with 2 x d10 WKP points from natural sources.)
- 86-95 PHENOMENAL
(Stores d10 +10 points of owner's WKP along with d100 points of WKP from natural sources.)
- 96-98 CRITICAL
(Item dumps all stored WKP and becomes useless.)
- 99-00 DANGEROUS
(Item explosively dumps all stored WKP and injures the user with 2 d10 points of blast and burn as the object disintegrates.)

NOTES ON PSI TAP

This is the ability to increase WKP for a short time by tapping into the WKP of a natural area or special source. All use of detections last d4 minutes. After the increase the WKP lasts up to 4 hours, or until it is used. After this time, the user returns to his or her natural WKP levels. WKP is also a natural force that can be found in special places or saturated into an area where PSI has been used with frequency or powerfully. The PSI must touch the object or line of force to gain this temporary WKP bonus. The following may be examples.



PSI BATTERY

An object with WKP embedded that acts like a battery. This object is always ready for use.

PSI TALENT: PSI TAP 16

- * FIND WKP RICH AREA C=25 T=05m
(Within a mile, if any.)
- * DETECT WKP AMOUNT IN AREA C=05 T=05m
- * TAP WKP OF AREA C=20 T=01m
- * TAP WKP IN OTHER'S PSI BATTERY C=05 T=30s
- * RELEASE WKP IN OBJECT C=05 T=01m
- * DUMP WKP INTO OBJECT C=10 T=05m
(Dumps d10 +1 points of the user's remaining WKP into an object for some later use. See the possible result of WKP storage in the next column.)

PSI ACTIVE AREA

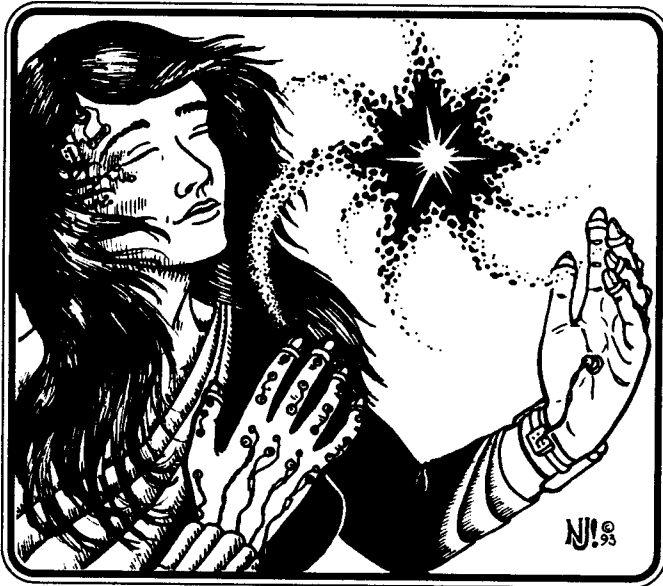
Area of high PSI activity that may include a lab, home, or even a battlefield. The tapping of these areas may gain 4 d10 additional WKP for use. This may be doubled in areas of PSI combat or excessive energy use on some past date.

HIGH ENERGY MYSTERY AREA

Many geographical points on alien worlds have lines of a high PSI energy flux that causes problems or have been the homes of primitive builders who commemorated the specialness of the area. Often these areas are rich in raw PSI energies. From these areas a WKP tap can gain 4 d10 +100 points for use. In rare instances or times of the year this natural energy flux will reach a peak and give the user d4 x10 +1000 points for use.

DIMENSIONAL RIFTS

Areas of dimensional, temporal, or supernatural rifts often leak energy. At the GM's decision, WKP tapped from such events can reach d4 x10 +100 points.



TECHNICALLY GENERATED

WKP may be technologically generated with special and often cumbersome equipment. This method is highly dangerous, being created by experimenters who little understand the rifts they are punching in the fabric of dimensional space. The safest use of such equipment is to quickly regenerate a character's WKP. Use on a non-psionic character gives a chance of Deathshock equal to the amount of attempted WKP regeneration.

DANGEROUS TALENTS

PSI TALENT: **ATTACK**

17

The Attack talent is a highly dangerous form of telekinesis that allows a physical attack without the use of physical combat. This may manifest in the form of a raging poltergeist that can demolish a small area, or a razor-sharp blade-like attack that slices as if the user's mind wields a 6 inch knife. Area effects may have a duration of 10 minutes.

- * **HARD SLAP** C=10 T=10s
(Does 1 point HPT damage per each additional 5 points of WKP the user adds over the initial cost.)
- * **POLTERGEIST WIND** C=20 T=01m
(Creates a 25 MPH wind or cyclone.)
- * **RAGING POLTERGEIST** C=40 T=01m
(Lifts and throws objects up to 10 pounds.)
- * **RAGING POLTERGEIST WIND** C=55 T=01m
(Creates a 50 MPH wind or small cyclone and multiple telekinetic disturbances in the same area. Objects up to 20 pounds can be lifted and thrown.)
- * **BLAST OF FORCE** C=25 T=30s
(Creates an explosion of force equal to d10 points of Blast Damage to HPT. Damage may be increased 1 point per every additional 5 WKP the user adds after the initial cost.)

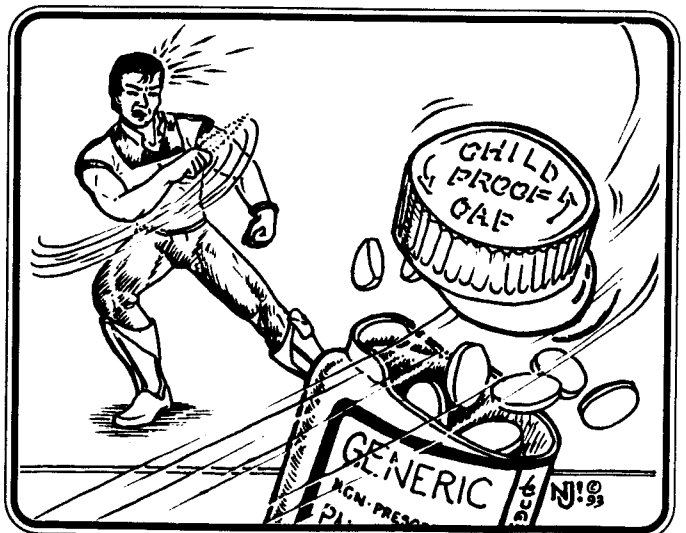
- * **ELECTRIC SHOCK** C=25 T=30s
(Creates an electric shock with a 5% chance of causing a Deathshock in the victim. Each additional 2 points of WKP used increase the chance of Deathshock by 1%)
- * **MIND BLADE** C=60 T=01m
(Creates a razor-sharp combat knife made of force. The user simply uses it from up to 10 feet away. Use Blade Damage tables from Pg. 106-107.)
- * **DEATHSHOCK** C=50 T=01m
(Each additional point of WKP over the initial cost induces the chance of a mental Deathshock, systemic or heart failure by 1%)
- * **MOLECULAR DISINTEGRATION** C=85 T=30s
(Removes up to a 1 inch cube of mass in any form by gentle molecular unbonding. Each additional 5 points of WKP used adds an additional square inch to the area. The 1 inch maximum depth of the unbonding may be lessened at the whim of the PSI.)

PSI TALENT: **LEECH**

18

This rare talent makes the Psionic both powerful and difficult to stop. The PSI user is able to remove Constitution (CON) from a victim and convert it into an equivalency value of WKP for his use.

- * **LEECH** C=10 T=30s
(Controllable, by touch, as needed.)
- * **FULL LEECH** C=05 T=30s
(Drains 1 point of CON per 5 seconds of contact.)
- * **LEECH SKILL** C=25 T=01m
(Gives 1 hour's use of the victim's skill level in any skill the psionic decides to take. The victim suffers a 10% chance of a Deathshock and is hard stunned for d10 minutes. This does not affect the victim's skill levels.)
- * **LEECH APPEARANCE** C=75 T=30m
(Gives the user hair color, voice, color and features of the victim for 7 days. This does not change body mass or sex. The victim is not harmed.)
- * **LEECH MEMORIES** C=50 T=15m
(Takes the victim's personal memories for use for 1 week. This creates a 20% chance of Deathshock for the victim and puts him or her into a coma for d10 hours. Recovery to full memory takes an additional d10 days.)



PSI TALENT: TELEPORT 19

Teleport allows the movement of mass from point to point in the blink of an eye. Objects teleported never materialize within a solid object.

- * TELEPORT (SELF) C=40 T=05s
(100 feet maximum, line of sight.)
- * TELEPORT (SELF) C=95 T=05s
(Teleport to any known place within 10 miles.)
- * TELEPORT OBJECT C=30 T=05s
(Move a 1 pound object up to 100 feet. For each additional point of WKP used another pound can be added.)
- * DEMATERIALIZATION C=90 T=01m
(The user can dematerialize his body and what he is holding for up to 2 minutes. Up to 20 pounds can be carried. Each additional point of WKP used increases weight carried by 1 pound. Any dropped objects will always re-materialize. At the end of 2 minutes, the user begins to lose d4 points of CON per minute, until he or she dies of oxygen deprivation. The PSI's now dematerialized form appears normal, but can not be affected by physical attack. Objects placed within other objects by the PSI stay hidden until later removed. The mingling of atoms has no ill effects if the PSI passes through a wall or another living being.)

PSI TALENT: MIND TRANSFER 20

This horrific use of PSI ability allows the user to transfer his entire mind and personality into another being by touch. This will submerge the victim's mind 95% of the time, or destroy it on a 10% chance. As the transferred mind leaves a body the victim experiences a 25% chance of a Deathshock. If the victim's mind and body are intact he or she recovers in d10 hours.

- * MIND TRANSFER C=200 T=05m
- * MIND TRANSFER LINE OF SIGHT C=250 T=05m
- * TRANSFER OTHER MIND C=300 T=05m
(Leaves a mindless body behind.)

DESPERATION WKP USE

When all else fails and a character needs the WKP power to do some incredible deed, he or she may find the power in acute desperation. This use gives the user the power needed at a cost of 1 day without PSI ability for every point they expend that takes their WKP score into negative numbers. Running WKP into a -10 score gives the PSI a 10 day burnout period before he or she begins to regenerate WKP normally. More than 20 points under 0 gives the PSI a roll from the PSI USE BURNOUT TABLE.

PSI USE BURNOUT

- 01-50 STUN
(Knocked unconscious for d10 minutes.)
- 51-75 HEAVY STUN
(Knocked unconscious for d10 hours.)
- 76-85 DANGEROUS STUN
(Knocked unconscious for d10 +10 hours.)
- 86-90 CRITICAL STUN
(Knocked unconscious for d10 days.)

- 91-95 COMA
(Knocked unconscious for d10 weeks.)
- 96-98 CRITICAL COMA
(Knocked unconscious for d10 weeks and suffers a 50% chance of a Deathshock.)
- 99-00 DEATHSHOCK
(Knocked unconscious for d10 weeks and suffers an 80% chance of a Deathshock.)



MIND PROBES

In the case of mind probes, the PSI victim can release a last ditch attempt to prevent the attack. This also reduces all WKP to 0 in the victim and the attacker.

REPULSE RESULT

- 01-95 REPULSED
(Neutralizes victim's and attacker's WKP for d10 hours.)
- 96-97 BLASTED
(Knocks victim and attacker unconscious for d10 hours.)
- 98-99 PSYCHOLOGICAL PROBLEMS
(Attacker and victim have identity problems for at least d10 hours along with a 0 WKP.)
- 00 CONTROL REVERSAL
(Attacker is controlled by the intended victim for at least d10 minutes as if a mind transfer occurred. Unfortunately both have a 0 WKP for d10 hours.)

FORCED PSIONIC DEVELOPMENT

A dedicated PSI user has a slight chance to increase the number of talents he or she has. This process takes a large amount of WKP to accomplish and has a number of requirements.

HOW DO I ADD NEW TALENTS?

Energy and a strong personal ambition that outweighs the danger involved are the primary costs to gaining new PSI talent areas.

PROCEDURE

- 01 First the PSI user must have a source of WKP energy stored or from an outside source that equals 500 points.
- 02 After d12 hours of deep meditation the PSI releases the WKP energy totally into his or her mind in the hopes of creating another talent. This release has no WKP cost.
- 03 The resulting release of energy that causes a stun that knocks the PSI unconscious for d20 hours.
- 04 After the PSI returns to consciousness roll a d100 on the result table.

RESULT

- 01-75 **NOTHING**
No Effect.
- 76-85 **MINOR TALENT DAMAGE**
PSI loses d4 skill levels from each of his or her normal PSI talents.
- 86-90 **NEW TALENT, SAFE**
PSI gains a new talent from the 1-16 talent range. (See Also Pg. 093)
- 91-95 **POSSIBLY DANGEROUS NEW TALENT**
PSI gains a new talent in the d20 talent range. (See Also Pg. 093)
- 96-98 **MAJOR TALENT DAMAGE**
PSI loses d4 +4 levels from each of his or her PSI talents.
- 99 **TALENT BURNOUT**
No new talent gain, the PSI loses all PSI Talents for at least d10 +2 months.
- 00 **DEATH**
This attempt kills the PSI user with a simple cardiac arrest. Resuscitate if able.

DESIGNER'S NOTES

- 01 If you roll for a new talent and gain one you possess, that new talent roll is lost. You can not gain what you already have or reroll.
- 02 The released WKP is lost even if there is no effect.
- 03 A PSI who has attempted a forced gain of PSI talent can not attempt it again for d4 months.
- 04 If the PSI is successful in gaining a new talent, the new ability will not manifest for d10 days.
- 05 The gaining of a new talent is always a random roll.
- 06 If the PSI is disturbed in the last hour before the WKP is released, the energy is lost.
- 07 The release of 500 points WKP in this fashion has a 50% chance of burning out all electrical equipment in a radius of 100 feet from the PSI.

- 08 The release of 500 points of WKP in this fashion has a 10% chance of setting d10 small fires around the PSI.

OPTIONAL BORDERLINE (LATENT) PSI

Any character that is two percentage points from having PSI is considered a borderline PSI. These individuals are PSI sensitive and often have minor problems when they encounter strong Psionic activity. This close score is recorded by the character, and the GM decides if and when the character will eventually gain that talent.

NATURE OF THE PROBLEM

- 01-50 Feeling of '*Psionics Being Used*'
51-75 Headache
76-85 Nose Bleed
86-95 Nausea
96-99 Migraine Headache
00 Vomiting



OPTIONAL ANTI-PSI ABILITY

If the character's PSI roll is 99 or 00 the character is considered to be an Anti-PSI. The character cannot attempt to roll for PSI again as this ability is permanent and unchanging. There are two types of Anti-PSI indexed by their initial dice roll.

- | | | |
|----|---------|----------------|
| 99 | Type I | MINOR Anti-PSI |
| 00 | Type II | MAJOR Anti-PSI |

TYPE I

This form of Anti-PSI is a ground for WKP energy and a bane for the PSI user. The presence of an Anti-PSI within 10 feet gives the Psionic an automatic -20% to use a talent. Touching the PSI reduces the chance of using a talent by 75%, (a multiplier of x.25) as well as draining 1 point of WKP per second of touch. Touch also gives the PSI a minor headache to deal with.

TYPE II

The most powerful Anti-PSI, completely shorts out the PSI user's ability on touch as well as draining 50% of his or her WKP per second. The presence of this form of Anti-PSI within 10 feet of the PSI will give a -50% to use a PSI talent. Often the Psionic will suffer a major headache and nose bleed on close association with the Anti-PSI.

DAMAGE

Damage is defined as the amount of punishment a character or structure can withstand before ceasing to function. Damage to a character may come in three forms during play.

01 WHOLE BODY DAMAGE (WBD)

This is any damage from concussion, shock, or other types of complex trauma that can affect a wide area of the body. WBD damage reduces hit points.

02 SPECIFIC AREA BODY DAMAGE

This damage is taken in a specific area from impact, high velocity projectiles, contact burns, and energy. These areas have only a limited number of the body's structure or hit points. Any specific damage that is over the area's total value will continue to travel through the body to exit and possibly hit a second target.

03 SYSTEMIC DAMAGE

Systemic damage is continuing damage to the health of the character. This type of damage will reduce the character's Constitution for a short period of time. This damage is mostly in cases of suffocation, poisoning, and the general or specific metabolic disruption that can be caused by disease.

Many forms of trauma combine all or several of these types of damage. A laser, for example, may cause burn, fragments from penetrated armor and blast if it pulses.

OPTIONS OF PLAY

Any Tri Tac Advanced RPG's can use two levels of damage for play. This is the GM's option on complexity.

LEVEL ONE (FAST PLAY)

Straight hit point reduction, ignoring all specific area damage. Much like the EASY system but with a shade more realism.

EXAMPLE

Shot in the leg, Dean takes 14 points of damage, walks to the doctor and has the wound treated. In a few hours he's out and as good as new, ready to adventure again. While simple and direct, it lacks realism.

LEVEL TWO (RECOMMENDED PLAY)

This level makes use of the complete medical system including specific area damage that includes bloodloss, shock, stun, and the realism of a serious medical emergency.

EXAMPLE

Shot in the leg, Dean takes 14 points of damage. The bullet slices through the knee, severing an artery and splintering the bone.

The bone splintering adds 5 points to the 14 already suffered and the artery wound adds d6 points per minute in damage until he can stop the bloodloss. He goes into shock, falls unconscious, and bleeds to death.

DESIGNER'S NOTES

In some ways the recommended system is a little more harsh than taking straight structure without side effects. This system is not recommended for NPC's or animals due to complexity. For this we have provided fast kill tables.



ALLERGIES

Allergies a common problem that crop up in many folks. These common substances can be the many foods, chemicals, and plant spores that trigger a immune reaction to an invading substance. This often less than perfect response generally makes the life of the victim miserable.

TYPE OF ALLERGEN

01-70	No Allergy
71-80	Plant Spore
81-90	Animal Fur
91-95	Food
96-98	Fibers / Dust
99	Chemical
00	GM Surprise

ALLERGEN

CONTACT

01-75	Extremely Rare
76-85	Unusual
86-95	Infrequent
96-98	Frequent
99	Very Frequent
00	Constant

WEEKLY CHANCE

OF CONTACT

	10%
	20%
	30%
	50%
	70%
	90%

REMEMBER

01 Roll the chance of the substance coming into contact with the victim in a general week.

02 POL: Pollen FOD: Food CON: Skin Contact

SEVERITY OF ALLERGIC REACTION

01-75	Light
76-85	Medium
86-95	Heavy
96-98	Serious
99-00	Critical

EFFECTS OF ALLERGIC REACTION

The following are the generalized effects of exposure to an allergen.

LIGHT ALLERGIC REACTION

POL: Minor Sneezing, Annoyance
 FOD: Indigestion
 CON: Itching / Annoyance

MEDIUM ALLERGIC REACTION

POL: Sneezing, Watery Eyes, Stuffed Up Nasal Passage
 FOD: Cramps, Nausea, Diarrhea
 CON: Minor Redness, Rash

HEAVY ALLERGIC REACTION

POL: As Medium with Headache
 FOD: As Medium with Vomiting, Cramps
 CON: As Medium with Swelling

SERIOUS ALLERGIC REACTION

POL: As Heavy with Incapacitation
 FOD: As Heavy with Incapacitating Cramps
 CON: As Heavy with Blistering

CRITICAL ALLERGIC REACTION

POL: As Serious with a 05% Deathshock
 FOD: Throat swelling gives 33% chance of suffocation without aid or an Allergic Deathshock of 10%. All other symptoms are found in the Serious Allergic Reaction table above.
 CON: Bleeding, Cracking, Festering

REMEMBER:

Allergic reactions can be lessened by use of drugs and common sense. The EFFECT column is the indicator that the allergic effect is now modified lower on the Allergic Reaction Severity level.

MODIFIERS

	CONTACT	EFFECT
Character is Careful	-25%	n/a
Character is Exceptionally Careful	-35%	n/a
Use 'Off the Shelf' Remedies	n/a	-10%
Use Specific Anti-Allergy Drugs	n/a	-25%
Desensitizing Shots at Allergist	n/a	-40%

REMEMBER

01 These optional modifiers can reduce the chance of having an allergic reaction or lessen its effects during the weekly check for contact the the substance. As your players explore other worlds, you can bet they will run into a wide variety of substances that they will be allergic to.

ANIMAL ATTACKS

Common alien animal attacks have a wide range of damage that has been classed into general groupings for easy use. Generally add the animal's Strength Related Damage to its particular form of attack damage. Damage codes can also have a letter code after their listing that modifies or adds to the attack.

REMEMBER

01 Additional and optional damage from an animal attack may include Toxin, Infection, Impact, Strangulation, or any of a number of optional possibilities.

BITES

	DAMAGE	
BI01	Bite, Very Small	d4 x .25
BI02	Bite, Small	d4 x .50
BI03	Bite, Medium	d4
BI04	Bite, Large	d6
BI05	Bite, Very Large	d10
BI06	Bite, Gigantic	d10 x 2
a	Adds 25% on damage because of rip or a slash attack.	
b	Adds 50% on damage because of rip or a slash attack.	
d	Add Strength Related Damage	

CLAW

	DAMAGE	
CL01	Claw, Very Small	d4 x .25
CL02	Claw, Small	d4 x .50
CL03	Claw, Medium	d4
CL04	Claw, Large	d6
CL05	Claw, Gigantic	d10
CL06	Claw, Monstrous	d10 x 2
a	Adds 25% on damage because of a rip or slash attack.	
b	Adds 50% on damage because of rip or a slash attack.	
d	Add Strength Related Damage	
f	Check for Bacterial Infection	

HORN / TUSK

	DAMAGE	
HO01	Horn, Very Small	d4x .50
HO02	Horn, Small	d4
HO03	Horn, Medium	d6
HO04	Horn, Large	2d6
HO05	Horn, Gigantic	2d10
a	Adds 25% on damage because of impaling or slash like attack.	
b	Adds 50% on damage because of impaling or slash like attack.	
d	Add Strength Related Damage	
f	Check for Bacterial Infection	



STINGER

		DAMAGE
ST01	Sting, Very Small	d4 x .25
ST02	Sting, Small	d4 x .50
ST03	Sting, Medium	d4
ST04	Sting, Large	d6
ST05	Sting, Gigantic	d10
a	Adds 25% on damage because of impaling or slash like attack.	
b	Adds 50% on damage because of impaling attack.	
e	Variable Toxin Possible	
f	Check for Bacterial Infection	

PINCER

		DAMAGE
PT01	Pincer, Very Small	d4 x .25
PT02	Pincer, Small	d4 x .50
PT03	Pincer, Medium	d4
PT04	Pincer, Large	d6
PT05	Pincer, Gigantic	d10
a	Adds 25% on damage because of scissors type attack.	
b	Adds 50% on damage because of scissors type attack.	
d	Add Strength Related Damage as an Option	

MANDIBLE

		DAMAGE
MA01	Mandible, Very Small	d4 x .25
MA02	Mandible, Small	d4 x .50
MA03	Mandible, Medium	d4
MA04	Mandible, Large	d6
MA05	Mandible, Gigantic	d10
a	Adds 25% on damage because of puncture attack.	
b	Adds 50% on damage because of puncture attack.	
d	Add Strength Related Damage as an Option	

PAW

		DAMAGE
PW01	Paw, Very Small	d4 x .25
PW02	Paw, Small	d4 x .50
PW03	Paw, Medium	d4
PW04	Paw, Large	d6
PW05	Paw, Gigantic	d8
a	Adds 25% on damage because of a high strength.	
b	Adds 50% on damage because of a high strength.	
d	Add Strength Related Damage as an Option	

HOOF

		DAMAGE
HF01	Hoof, Very Small	d4 x .25
HF02	Hoof, Small	d4 x .50
HF03	Hoof, Medium	d4
HF04	Hoof, Large	d6
HF05	Hoof, Gigantic	d10
a	Adds 25% on damage because of high weight impact.	
b	Adds 50% on damage because of high weight impact.	

REMEMBER

These are general terrestrial statistics that can be adapted for use in any alien environment. Change damage and possible modifiers as you will to create 'alien' life forms that have realism. See the Alien Design Table in Book 2.

TAIL

		DAMAGE
TA01	Tail, Very Small	d4 x .25
TA02	Tail, Small	d4 x .50
TA03	Tail, Medium	d4
TA04	Tail, Large	2d4
TA05	Tail, Gigantic	3d4
a	Adds 25% on damage because of a high strength or whip like impact.	
b	Adds 50% on damage because of a high strength or whip like impact.	
d	Add Strength Related Damage as an Option	

TENTACLE

		DAMAGE
TN01	Tentacle, Very Small	d4 x .25
TN02	Tentacle, Small	d4 x .50
TN03	Tentacle, Medium	d4
TN04	Tentacle, Large	d6
TN05	Tentacle, Gigantic	d10
a	Adds 25% to damage because of crushing attack.	
b	Adds 50% to damage because of crushing attack.	
d	Add Strength Related Damage as an Option	



MISCELLANEOUS ATTACKS

		DAMAGE
TRUNK		
MS01	Trunk, Medium	d6
MS02	Trunk, Large	d10
MS03	Trunk, Gigantic	d10 x 2
a	Adds 25% to damage because of crushing attack.	
b	Adds 50% to damage because of crushing attack.	
d	Add Strength Related Damage as an Option	

STAMPEDE

		DAMAGE
MS04	Stampede, Small Creature	d10
MS05	Stampede, Medium Creature	2d10
MS06	Stampede, Large Creature	4d10
MS07	Stampede, Concentrated	8d10
* Per minute of damage		
h	Large Herd	x 2

KICK / BUTT

MS09	Kick or Butt: Strength Related Damage
------	---------------------------------------

CONSTRICT / HUG

MS10	Constriction: See Tentacle Damage, add any Strength Related Damage.
------	---

HIGH WEIGHT IMPACT

MS11	High Weight Impact: (See Also Vehicles Pg. 119)
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ANIMAL EXAMPLES

The following is a descriptive key for animal types and physical data.

HABITAT

- A Fresh Water
- B Salt Water
- C Rivers, Streams
- D Grasslands / Tundra
- E Pastures / Hills
- F Forest
- G Rain Forest
- H Mountains
- I Desert
- J Cities / Suburbs
- K Islands / Isolated
- L Domesticated

CLIMATE

- M Tropical
- N Sub-Tropical
- O Temperate
- P Sub-Arctic
- Q Arctic/Antarctic
- R Any

- 1 Herbivore
- 2 Omnivore
- 3 Carnivore
- 4 Parasitic

EATING HABITS

PHYSICAL DATA

- a Membrane / Skin
- b Hide / Scales
- c Heavy Hide / Heavy Scales
- d Fat Layer
- e Light Fur / Feathers
- f Medium Fur / Feathers
- g Heavy Fur
- h Bony Plates / Exoskeleton
- i Shell
- j Spines
- k Regenerate Lost Part

- l Solitary
- m Mated Pairs
- n Family Group
- o Herd/School/Flock
- p Colonies
- q Burrower

BEHAVIOR

MOVEMENT

- r Flyer
- s Climber
- t Runner
- u Crawler
- v Jumper
- w Swimmer
- x Sessile
- y Migratory
- z Hunter

ANIMAL DATA KEY

TMP = Temper AGL = Agility DEX = Dexterity
 TOX = Toxin STR = Strength INF = Information
 HPT = Average Hit Points
 DAMAGE = General Damage Type

FISH, SMALL

INF ABow

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
14	08	10	55	02	1-10	BI01-BI02

Includes: Piranha, and small carnivorous fish with teeth or beak. May sting or poison.

FISH, MEDIUM

INF ABcbow

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
10	08	30	45	05	1-2	BI02-BI04

Includes: Small Sharks, Barracuda and other predatory fish.

FISH, LARGE

INF ABcbow

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
08	08	100+	40	10+	1-2	BI04-BI06+

Includes: Sharks, Rays, Swordfish, Tuna, and large game fish. Rays and eels have the ability to sting or electric shock.

FISH, GIGANTIC

INF ABcbow

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
06	06	250+	40	20+	1-2	BI06+

Includes: Large extinct species, Giant Sharks, etc.

BIRDS, AVERAGE

INF DEFGHIJKLMNQP123efmopry

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
14	16	10+	65	3-5	-	BI01-BI03

Includes: Hawks, Seagulls, Eagles, and Crows.

BIRDS, LARGE

INF DEFGHIJKMNOQP123fmopry

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
13	15	20+	65	5-9	-	CL01-CL4

Includes: Condor and Great Eagles

BIRDS, FLIGHTLESS

INF DEIKMNO123filmopty

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
12	14	40+	45	10+	-	BI02-BI05

Includes: Ostrich, Moa, and extinct giant species. +Kick

MAMMALS, SMALL

INF Most Areas, Climates

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
14	14	05	55	02	1-2	BI01-BI03

Includes: Rats, Opossums, Dogs, Small Monkeys, etc. Bite may be mildly toxic in some rare cases. Teeth may Slash.

MAMMALS, MEDIUM

INF Most areas, Climates

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
14	13	20+	40	08+	-	BI01-BI03

Includes: Wolverines, Smaller Bears, Badgers and Apes. May have slash attack from fangs.

MAMMALS, LARGE

INF Most areas, Climates

AGL	DEX	HPT	TMP	STR	TOX	DAMAGE
13	12	50+	50	14+	-	BI01-BI06

Includes: Great Cats, Bears, Extinct Mammals, Large Canines and Durf.

MAMMALS, GRAZERS INF Most areas, Climates
 AGL DEX HPT TMP STR TOX DAMAGE
 14 10 50+ 70 15+ - BI01-BI03
 Includes: Deer, Antelope, most herd animals. May Kick, Trunk, Horn, Stampede, or Hoof in any combinations.

REPTILES, SMALL INF ACEFGIKMNO123bchijklz
 AGL DEX HPT TMP STR TOX DAMAGE
 09 10 15+ 47 04 01-06 BI01-BI03
 Includes: Snakes, Lizards, may include small running Dinosaurs and Turtles.

REPTILES, MEDIUM INF AGIKMN123cbhijklpstuvwz
 AGL DEX HPT TMP STR TOX DAMAGE
 08 10 45+ 50 06+ 01-04 BI02-BI03
 Includes: Larger snakes, Lizards, may include extinct Dinosaurs or running Lizards up to the size of a man. Damage may include Kick, Slash, or Claw.

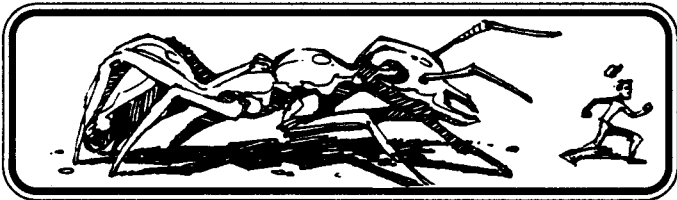
REPTILES, LARGE INF AGIKMN123chijklpstuvz
 AGL DEX HPT TMP STR TOX DAMAGE
 07 10 125+ 40 25+ - BI04-BI06+
 Includes: Giant Reptiles and Dinosaurs. Damage may also include Claw, Rip, or Slash attack.

REPTILES, GIANT INF ABCGIKMN123chijklpstuvz
 AGL DEX HPT TMP STR TOX DAMAGE
 07 09 250+ 30 50+ - BI04-BI06x4
 Includes: Large carnivorous Reptiles and Dinosaurs. May include Tail, Claw, Rip, or Slash attacks.

INSECTS INF CDEFGHIJKMNO123hijkprzw
 AGL DEX HPT TMP STR TOX DAMAGE
 14 09 1 50 - 1-2 ST01, BI01
 Includes: Flies, Bees, Beetles, etc. MA01

INSECTS, GIANT INF DEFGHKMNO123ijkprz
 AGL DEX HPT TMP STR TOX DAMAGE
 09 06 10+ 50 03 3-5 ST01-ST02
 Includes: Extinct Giant Species. May have Mandible Attack.

INSECTS, MONSTROUS INF DEFGHKMNO123ijkprz
 AGL DEX HPT TMP STR TOX DAMAGE
 09 06 100+ 50 15+ 5-9 ST03-ST05
 Includes: Mutant Giant Species. May have Mandible Attack



REMEMBER

These listings are generalizations for use by the GM. Use optional size modifiers. Remember, animal attacks can be variable to the extreme. Unpredictability is the key word in dealing with wild animals. Use logic and consider the animal, its habits, and general reaction to provocation. (See also Temperament Pg. 165 & Animal Fast Kill Pg 164)

ASPHYXIATION

Asphyxiation is the condition caused by lack of a breathable atmosphere for a life form. The listings are damage caused per 30 seconds of suffocation.

	HPT REDUCTION	CON REDUCTION
DROWNING		
Non-Panicked	d4	1
Panicked	2d4	d4
CHOKING ON FOOD OR OBJECT		
Non-Panicked	1	1
Panicked	d4	d6
CRUSHING WEIGHT		
Chest	Variable	d6
Back	Variable	d4 +01
DAMAGED OR SWOLLEN BREATHING PASSAGE		
Physical Damage	Variable	2
Toxin Caused Swelling	Variable	1
PHYSICAL STRANGULATION		
Hands	d4	d4
Rope / Cord	d6	d4 +01
Chain	d6 +01	d4
Pipe	d6 +02	d4 +02
Wire Garrote	d10	d4 +03

BREAKING STRANGULATION HOLD

This can be used by the victim once per minute by indexing the attacker's to victim's strength. Roll a d100 for the victim's chance to break away from a strangle hold.

STRENGTH INDEX	VICTIM'S CHANCE TO BREAK FREE
Attacker has 4 times defender's strength	25%
Attacker has 3 times defender's strength	38%
Attacker has 2 times defender's strength	50%
Attacker and defender have equal strength	62%
Attacker has .75 of defender's strength	75%
Attacker has .50 of defender's strength	88%
Attacker has .25 of defender's strength	94%

STRANGULATION MODIFIERS

STRANGULATION MODIFIERS	BREAKAWAY MODIFIER
Attacker Behind Victim	-20%
Attacker In Side Position	-10%
Attacker Face to Face with Victim	+05%
Attacker has Medical Skills	-10%
Attacker has Combat Training	-15%
Attacker has Complete Surprise	-10%
Attacker has MARTIAL ARTS Training:	
-Per Level of Active Offense	-05%
Victim combat Trained	+15%
Victim has Warning of the Attack	+10%
Victim has MARTIAL ARTS Training:	
-Per Level of Active Defense	+05%

REMEMBER

- 01 Total Optional Modifiers and attempt the break.
- 02 Take HPT and CON damage.
- 03 Wear a protective collar next time.

ATMOSPHERIC DAMAGE

Atmospheric damage is sustained when a character is exposed to any environment that has the wrong atmospheric pressure or mix of breathable gasses.

DAMAGE PER MINUTE	HIT POINT REDUCTION	CONSTITUTION REDUCTION
Vacuum	d10	2d10
Very Thin	d4	d6
Thin	No Damage	1
Thin Standard	No Damage	*
Standard	No Damage	No Damage
Heavy Standard	No Damage	*
Heavy	No Damage	1
Super Heavy	2d10	d6
Dense	3d10	2d10

* These atmospheric pressures only affect characters who are exerting a high degree of physical action. Reduce Constitution one point per minute until they rest or fall unconscious. After d4 minutes they begin to recover Constitution normally.

NOXIOUS GASSES

Atmospheric damage can also be sustained by breathing gasses that damage lung tissue or inhibit proper respiration. These problems often manifest in the form of fuzzy thinking, coughing, a loss of AGL, DEX, ACC, STR, THR, DOD, and choking.

DAMAGE PER MINUTE	HIT POINT REDUCTION	CONSTITUTION REDUCTION
Light Corrosive	d6	d6
Medium Corrosive	d10	2d6
Heavy Corrosive	2d10	3d6
Light Noxious	No Damage	1
Medium Noxious	No Damage	d4
Heavy Noxious	d4	d6



TOXIC ATMOSPHERIC ELEMENTS

Noxious atmospheres can be higher in ammonia, hydrogen, methane, chlorine, cyanide compounds, and sulfur dioxide. In higher concentrations, ammonia, chlorine, sulfur dioxide, and other compounds become corrosive and deadly to unprotected life.

In some cases the wrong mixtures of common breathable gasses will also cause side effects of giddiness, dizziness, difficult respiration, unconsciousness and death. Most of these conditions can be remedied by returning to a standard atmosphere or pressure.

	STR	DEX	AGL	WIZ	DOD	THR
Oxygen Rich	+01	-	-	-01	-01	-
Oxygen Poisoning	-03	-03	-03	-02	-02	-02
Nitrogen Narcosis	+02	+01	-01	-03	-02	-03
Nitrogen Bubbles	-05	-04	-05	-05	-05	-06

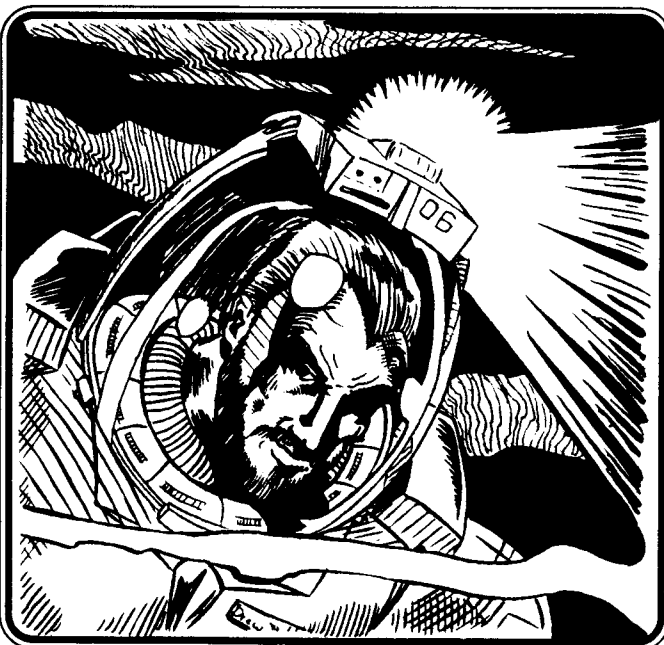
PRESSURE SUITS

Most normal vac and environmental suits are designed to be able to withstand extremes of pressure and temperature. A suit puncture that is not 'resealing' allows the entry of noxious substances though damage is modified by the hole's location and size.

	PUNCTURE	CUT	GASH
HELMET	x1.00	x0.75	x1.00
CHEST / BACK	x0.50	x0.25	x0.75
ABDOMEN	x0.50	x0.25	x0.50
ARMS / LEGS	x0.25	x0.25	x0.50
EXTREMITIES	x0.25	x0.25	x0.25

REMEMBER

General damage to HPT begins at exposure to the corrosive gasses. Damage to CON begins as the corrosive or dangerous gasses are breathed into the sinus, throat, esophagus, and lungs. Damage may also be to soft tissue surfaces such as open wounds or eyes. This type of CON reduction takes up to 4 weeks to recover.



BLADE DAMAGE

Blade damage is any structural harm that comes from a sharp or edged weapon. These weapons may be as simple as chipped flint or as complex as a finely balanced throwing knife. Damage from blades depends on use by the attacker and, in more complex situations, the area hit. The following are general methods of use.

- A STAB**
To impact, a direct puncture wound. Use d100% of the blade length for depth of penetration.
- B IMPALE**
A deep puncture wound. Up to the maximum blade length.
- C CUT**
A shallow, long wound. Up to d4 inches of blade being used.
- D SLASH**
A deep, long wound. Up to d6 inches of the blade being used.
- E CHOP**
Impact from a heavy blade.

USING BLADE DAMAGE

Blade damage and impact are dependent on four factors. Each of these factors add to the damage and blade penetration. These include:

BASE DAMAGE

Indexed from the type of blade and the use of cutting action.

BLADE LENGTH

The length of the blade in inches that impacts into the target. See the examples below.

ATTACKER STRENGTH MODIFIER & BLADE WEIGHT

The general weight of the blade indexed to the Strength Related Damage of the person using it to produce a number of dice of damage. (See Also Pg. 114)

SHARPNESS

The final damage multiplier dealing with the sharpness of the blade.

$$\text{BLADE DAMAGE} = (A + B + C) \times D$$

A	B	C	D
BASE DAMAGE	BLADE LENGTH	STRENGTH & WEIGHT	SHARPNESS MODIFIER

REMEMBER

- 01 For Strength, go to the Strength Damage table and index the strength of the attacker by the general weight of the blade.
- 02 Most blades will fall into one of the general categories below.

VERY LIGHT

These are the small blades and knives that have little or no weight modifiers. Index these from the PUNCH / KICK column.

LIGHT

A step up from the pocket blades are the small utility, hunting, general survival, and cooking knives that are a bit heavier. Index these from the LIGHT OBJECT table.

MEDIUM

These are the heavy blades, large survival knives, combat type blades, and short swords. Index these larger blades from MEDIUM OBJECT in the Strength Related Damage table on Pg 114.

HEAVY

Heavy blades are the swords and larger combat weapons. Index these from the HEAVY OBJECT column of Strength Related Damage. (See Also Pg. 114)

SHARPNESS MULTIPLIER

BLUNT EDGE	x0.25
VERY DULL	x0.50
DULL	x0.75
AVERAGE	x1.00
SHARP	x1.25
VERY SHARP	x1.50
RAZOR SHARP	x2.00

BLADE DATA KEY

- WTE = Blade Weight Equivalency (See Pg. 114)
- LEN = Length of Blade
- N = User's Strength, No WTE Bonus

BASE DAMAGE BY IMPACT TYPE

BLADE	LEN	STB	IMP	CUT	SLA	CHO	WTE
Flint Blade	03"	d4	-	d4	d4	-	N
Stone Axe	04"	-	-	d4	d4	d6	L
Stone Spear	03"	d6	2d6	d4	-	-	H
Short Blade	04"	d6	d8	d6	d4	-	N
Medium Blade	06"	d6	d6	d4	d4	-	L
Long Blade	12"	d8	d8	d6	d6	d4	M
Short Sword	23"	d8	d10	d8	d8	d10	M
Sword	41"	d8	d10	d10	d10	d10	H
Great Sword	70"	d10	2d10	d8	d10	2d10	H
Halberd	12"	d8	2d10	d8	d10	2d10	H
Axe, Dbl Bld.	06"	-	-	d6	d10	3d6	H
ICL Survival	14"	d8	d6	d8	d8	-	M
Razor	05"	-	-	d8	d10	-	N
Meat Cleaver	08"	-	-	d6	d8	d10	M
Bowie Knife	10"	d6	d8	d8	d8	d6	M
Rapier	35"	2d6	3d6	d6	d8	-	N
Katana	45"	d8	d10	d10	d10	d10	M
Star	02"	d4	-	-	-	-	N



BLADE	LEN	STB	IMP	CUT	SLA	CHO	WTE
Chain Saw	14"	2d10	4d10	2d10	2d10	3d10	H
Scimitar	36"	d6	d10	d10	3d6	2d6	H
Trench Knife	14"	d6	-	d6	d8	-	M
Garrote	-	-	-	d6	-	-	N
Brass Knucks	-	-	-	d4	-	-	L
Bull Whip	-	-	-	d6	-	-	N
Broken Bottle	-	d4	-	d6	d8	-	N
Cat' Nine Tails	-	-	-	d8	-	-	N
Crowbar	-	d4	d6	-	d4	d6	H

REMEMBER

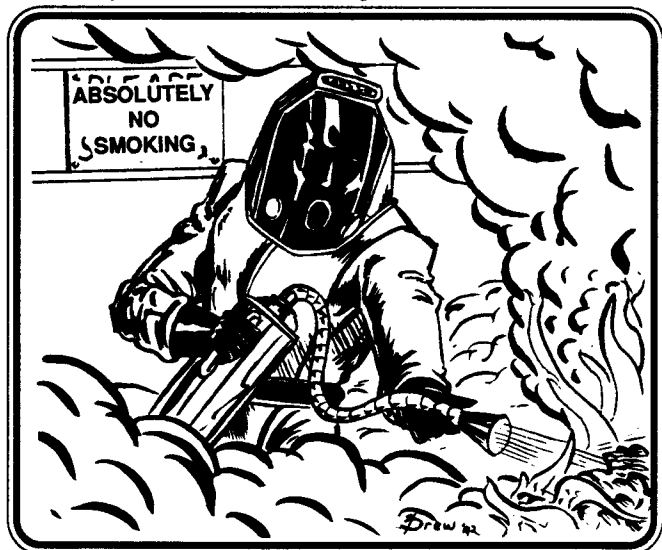
The penetration of a bladed weapon is limited to the amount of blade surface that actually comes into contact with the body of the victim.

EXAMPLE

As Brian lunges with a 10" trench knife and hits Russ he impacts with 75% of the blade. The damage from blade length would be 75% of 10 inches or 7.5 rounded down to 7 inches.

REMEMBER

- 01 Treat general blade damage, slashes and cuts as WBD or General Hit Point Damage.
- 02 Index stabbing wounds by specific area in the Detailed Body Charts. (See Also Pg. 126)



BURNS

Any source of heat that damages living tissue is a burn. Burns may come from direct contact or projected energy.

DAMAGE PER ACTION	HOT	BURN	HIGH TEMP
Radiant Heat	d4	d8	d10

FLASHBURN	FAR	NEAR	VERY CLOSE
Flashburn Damage (WBD)	d6	d10	2d10
Chance Blindness	10%	40%	85%
Blindness Recovery	95%	85%	75%

* If eyes are unshielded, blindness may result from flashburns. Natural recovery occurs within 2d6 days.

CONTACT BURNS

Contact burns usually do not ignite the victim unless the burn is classified as a high temperature burn. Any high temperature burn has a 25% chance of causing a flammable object to ignite if the burn lasts more than one action.

REMEMBER

- 01 Burn damage continues from the initial burn damage taken.
- 02 During each successive action the amount of damage will increase (INCR) in damage until the fire is extinguished.

FIRE DAMAGE

AREA SIZE	DAMAGE PER ACTION			
	HOT	BURN	HI-TMP	INCR
Small Area	d4x.25	d4x.50	d4	1
Medium Area	d4x.50	d4	d6	2
Large Area	d4	d4+02	d6+02	4
Fragment Burn*	d6	2d6	3d6	-

* Any burning fragments like phosphorus or sodium have the same penetration damage as ballistic projectiles with the added burn damage every action until extinguished or removed.

BURNING LIQUID SATURATION

	HOT	BURN	HI-TMP	INCR
Limited Spotting Saturation	d4	d6	d10	2
Up to 25% body	d6	2d6	3d6	5
Up to 50% body	2d6	3d6	4d6	8
Up to 75% body	3d6	4d6	5d6	10
Up to 99% body	4d6	5d6	6d6	14

BURN DAMAGE TO LUNGS PER ACTION

	HOT	BURN	HI-TMP
Constitution Damage	d4	2d6	4d6
Smoke Inhalation	0	1	d4

PUTTING OUT FIRE

Any character may assist the burning victim or object by trying to smother the fire. Each person assisting may add to the damage stopped per turn.

TYPE	EXTINGUISHES PER ACTION	DAMAGE TO RESCUER
Bare Hands	d6	d4
Roll on Ground	2d6	d4 x .50
Roll in Snow	3d6	d4 x .50
Blanket Wrap	2d6	d4 x .50
Fire Blanket	4d6	d4 x .25
Dry Extinguisher	5d6	-
Water Bucket	2d6	-
Sand Bucket	3d6	-
CO ₂ Extinguisher	4d6	-
Soda Acid	3d6	-
Chemical Foam	6d6	-
Water Immersion	9d6	-
Inert Gas Extinguisher	6d6	-

COSHING

Coshing is a simple table for knocking an individual down or unconscious by a specific impact to the head or neck area.

01-05	GLANCE	Victim turns his, her, or its head and receives a glancing blow that only costs them 2 actions to recover from.
06-10	NEAR GLANCE	Victim receives a glancing blow that only slows them for d6 +2 actions.
11-50	STUN	Victim falls to knees, if any, from the stun of the head impact. Takes 2d10 actions to recover.
51-90	COSHED	Victim is knocked unconscious for d10 minutes.
91-95	SERIOUS COSH	Victim is knocked unconscious for d10 hours.
96-98	CRITICAL COSH	Victim stunned unconsciousness for d4 days of coma. A 05% chance the victim will stay in the coma d4 months.
99-00	DEADLY COSH	Victim is blasted into unconsciousness. There is a 50% chance he or she will die in d10+10 minutes without medical aid.

COSHING MODIFIERS

Coshing can also be modified by the use of heavy objects or specific combat skills.

Light Object	-05	Breakable Chair	+03
Medium Object	+0	Pottery	-10
Heavy Object	+10	Rock (good size)	+05
Blackjack	+05	Rock (large)	+10
Club (wood)	+05	Bottle	-15
Pipe (metal)	+10	Gun But	+07
Total Surprise	+10	Wooden Crate	+05

ADDITIONAL MODIFIERS

Per Three Levels of Boxing or Street Combat Skill	+04
Per Three Levels of Martial Arts AO, a Chop or a Kick to the head or neck.	+05
Head Impact into Concrete, Steel, etc.	+10
Head Impact into Sand, Damp Earth, etc.	-05
Head Impact into Wooden Walls, Plasterboard, etc.	+05

TUMBLING / TACKLING

In cases of Common Slip, Tripping, Short Jump-Related Falls, Tackling, and General AGL Failure, your character can run into minor injury.

01-75	SIMPLE TUMBLE / TACKLE	No injury.
76-95	SERIOUS TUMBLE / HARD TACKLE	Take d4 x .50 (HPT) damage.
96-00	CRITICAL TUMBLE / TACKLE	Roll a d100 on the table in the next column.

CRITICAL TUMBLE / TACKLE

01-50	MINOR DAMAGE	Take a d4 Hit Point (WBD) damage.
51-75	GOOD FALL	As #1 with d10 actions needed to recover.
76-85	REAL GOOD FALL	Take at least d4 +4 damage and d10 +10 actions to recover.
86-90	PAINFUL TWIST	Joint twisted, serious pain for d6 hours.
91-95	SPRAIN	Joint sprained, serious pain d6 days.
96-99	TORN LIGAMENT	Torn muscle attachment, serious pain d6 weeks.
00	BONE FRACTURE	See Bone Damage Chart on page (135). See Muscle Sprain Chart on page (122).

ELECTRICAL DAMAGE

To find any electrical damage multiply the amperage by a d10. Index the **result**. Repeat the roll for death, damage and loss of consciousness each additional 2 seconds of contact.

RESULT	LOSS OF CONSCI	CHANCE OF DEATH	HIT POINT DAMAGE
001-010	10%	0%	d4
011-020	15%	10%	2d4
021-030	20%	15%	2d6
031-040	25%	20%	3d6
041-050	30%	25%	4d6
051-060	40%	30%	5d6
061-070	50%	40%	6d6
071-080	60%	50%	7d6
081-090	70%	60%	8d6
091-100	80%	70%	9d6
101-200	90%	80%	10d6
201+	98%	98%	10d6

PHYSICAL CONTACT WITH ELECTRICAL SOURCES

01-75	Victim thrown d10 feet by shock, full damage.
76-90	Two actions full damage, then go to 1.
91-00	The victim is paralyzed to the electrical source until it is turned off or contact is physically broken.

REMEMBER

- 01 At death an electrocution victim begins to loose his or her constitution at the rate of d4 points per minute until medical aid can arrive and begin resuscitation.
- 02 Any critical electrical shock over a RESULT of 10 has the optional chance of doing mental damage to the victim.
- 03 The character takes burn damage equal to 1 point of burn for every point amperage in the calculation.
- 04 The electrical charge will generally 'circuit' through the body to the most easy spot where it can 'ground' out. At best this is unpredictable.

MENTAL DAMAGE

- 01-95 There is no Mental Damage
- 96-98 Reduce d6 +1 mental skills one point.
- 99 Reduce d4 +1 mental skills d4 points.
- 00 Reduce all of the victim's skills, mental statistics, and physical statistics d4 points.

EXHAUSTION

Combat exhaustion is an option for long situations of physical combat or for those special acrobatic stunts done in any quantity the GM suspects of being in excess of human norms.

EXHAUSTION POINTS

Use your character's Constitution added to Strength as a base number for your Exhaustion Points.

COMBAT USE

Reduce Exhaustion Points by one point per punch or kick during combat. For acrobatic stunts use the Difficulty Rating of a stunt for the number of points used.

PHYSICAL EXHAUSTION

When points reach 0, begin to reduce your Dexterity, Dodge, and Strength in the same way as your Exhaustion Points. The player has the choice of which statistics are reduced. This reduction can be split between the three statistics as the player wishes.

REMEMBER

- 01 At 0 DEXTERITY:
The character cannot hit the broad side of a barn.
- 02 At 0 DODGE:
The character is seriously clumsy and can fall with little provocation.
- 03 At 0 STRENGTH:
The character can punch or lift objects but not with any effectiveness.
- 04 If any two of these characteristics reach 0 the character will collapse from exhaustion.
- 05 This is not a permanent reduction.
- 06 Exhaustion Points are regained at a rate of 2 per game minute when the character rests.

SLEEP

A lack of sleep will reduce your general Exhaustion Points by a 25% cumulative rate per 24 hours of being awake.

DRUGS

Drugs can add +10% to your Exhaustion Points per 12 hours of use with a penalty of +50% of the needed amount of sleep.

DETERMINATION & TRAINING

Solid mental determination can add d10 Exhaustion Points for a single use in a 24 hour period. Special physical training such as martial arts, boxing, combat sports or gymnastics teach the ability to weather exhaustion with a gain of 3 Exhaustion Points per skill level.

REMEMBER

- 01 Do not use Exhaustion Points unless it is specified by the GM.
- 02 General action does not use Exhaustion Points unless the activity is special or determined to be strenuous.

EXPLOSION DAMAGE

Objects are affected in two different ways by explosives.

01 Concussion

02 Fragmentation

CONCUSSION DAMAGE

The first type of damage from explosion is straight blast or concussion damage. This slap of hard force is divided by the object or victim's distance in feet from the blast center.

FRAGMENTATION

The second type of damage is created by fragmentation that is deliberate or caused by material disintegration. These small or large fragments travel with the same penetration as the force of the blast. Treat fragments as bullet wounds. Fragment velocity is divided by the victim's distance in feet from the blast.

REMEMBER

- 01 Divide the total points of 'blast' damage (or fragmentation velocity) by the distance in feet from the blast.

MODIFIERS

Different circumstances will change the configuration of the blast wave and the resulting damaging slap of force. The following are objects that can shield from blast.

TYPE	MULTIPLIER	TYPE	MULTIPLIER
Unprepared	None	Mud	x .50
Prone	x .75	Sand	x .75
Shallow Hole	x .50	Debris	x .50
Deep Hole	x .25	Rock	x .25
Heavy Wall	x .50	Brush	x .75
Heavy Trees	x .50	Snow	x .75
Light Trees	x .75	Water	x .75

Ben, Bells & Quag

On inspection of their ship, Bells and Quag check the arms locker.

Not knowing what the spherical object is, Quag pulls the pin. As the spoon flies away Bells grabs it and slams it into a disposal vent and hits the emergency eject button.

Too late, the grenade detonates in the lower section of the ship. 400 points of damage vaporize the transit pipe that can only take 90 points. The remaining 310 points travel 10 feet to the wall Ben is standing behind. The damage of the blast is divided by the distance to the target from the blast center in feet. The 310 points becomes 31 points of blast as they hit the wall.

The inch thick plastic wall can withstand 25 points of blast. The wall is destroyed and Ben takes 6 points of WBD or Whole Body Damage.

Ben swears as sewage begins to flood the Work Pod area on the lower deck.

FALLING CHARACTERS

When a character falls, there are two choices of fall. First is the uncontrolled, panic or surprise impact. This type of impact does full damage to the character.

The second type of impact is the no panic, controlled impact that the character plans for. The chance of the accomplishment of a controlled impact is rolled on a d100. The base number to roll under is 20 + Agility + 1 point per level of martial arts **Active Defense (AD)** skill.

This controlled impact reduces fall damage by 50% (multiply damage by x.50). This ability to control a fall is limited to falls under 25 feet in height.

REMEMBER

- 01 Roll under (20+ Agility +1 pt per MARTIAL ARTS (AD) Level) on a d100 for success.

DAMAGE FROM FALLS

Fall damage is equal to d10 points per 10 feet of fall. A character in good physical shape can be expected to control a 10 foot fall, under most circumstances, with no damage. Do not bother with fall unless the distance is over 10 feet. Also see the Tumbling Table. (See Also Pg. 108).

REMEMBER

- 01 Use Modifiers for the Control of the Impact and Impact Substance.
- 02 Fractured bones are generally located in the area that bore the brunt of the impact. Give the victim a 10% cumulative chance, per 10 feet of fall, to break d4 bones. Roll on the Bone Breakage chart in the Detailed Body Tables. (See Also Pg. 126).
- 03 A different gravity reduces or increases damage with the closest multiplier found on the multiplier page.

IMPACT MODIFIERS ON DAMAGE

TYPE	MODIFIER	TYPE	MODIFIER
Water	x .75	Debris, Small	x .50
Mud	x .50	Debris, Medium	x .75
Damp Earth	x .75	Branches, Light	x .75
Sand	x .50	Branches, Dense	x .50
Gravel	x .75	Coniferous Branches	x .50
Dry Earth	x 1.0	Steep Slope	x .75
Swamp	x .50	Plywood Roof	x .75
Spongy Plants	x .50	Partial Parachute	x .50

Ben, Bells, & Quag

Knowing her friend Ben is in trouble a few decks below, Bells jumps into a null grav tube to take her to the scene of the accident. As she reaches for the button she realizes the tube has failed and it's a 40 foot drop.

Bells will take 4d10 damage unless she can control her plunge. Her base percentage is 20 + AGL of 16 + her Martial Arts of 3 in Active Defence. Bell has a flat 39% on a d100 for success in avoiding full damage.

Rolling a 44, Bells slams into the top of the Null Grav Unit and takes 18 points of WBD (Whole Body Damage). As she tries to crawl to her feet, the finicky Grav Unit activates and she floats upwards.

FALLING OBJECTS

Any object dropped on a player character may cause damage. All weights listed are in pounds. All damage is listed in 10 sided dice.

OBJECT WEIGHT	HEIGHT OF FALL									
	10	20	30	40	50	60	70	80	90	90+
001-009	0	1	1	2	2	3	4	5	6	
010-020	1	1	2	2	3	4	5	6	7	
021-030	1	2	3	4	5	6	7	8	9	
031-040	2	3	4	5	6	7	8	9	10	
041-050	3	4	5	6	7	8	9	10	11	
051-060	4	5	6	7	8	9	10	11	12	
061-070	5	6	7	8	9	10	11	12	13	
071-080	6	7	8	9	10	11	12	13	14	
081-090	7	8	9	10	11	12	13	14	15	
091-100	8	9	10	11	12	13	14	15	16	
101-150	9	10	11	12	13	14	15	16	17	
151-200	10	11	12	13	14	15	16	17	18	
201-250	11	12	13	14	15	16	17	18	19	
251-300	12	13	14	15	16	17	18	19	20	
301-350	13	14	15	16	17	18	19	20	21	
351-400	14	15	16	17	18	19	20	21	22	
400+	15	16	17	18	19	20	21	22	23	

OPTIONAL HEAD DAMAGE

Crushing or severe structural damage to the character's head invariably kills the character. Index the general mass of the object by the height it falls from.

Roll a d100 over this percentage. If the character fails this roll, his head has been crushed and his brain destroyed. Use optional modifiers if applicable. Use this table sparingly on player characters.

GENERAL

SIZE	EXAMPLE	MODIFIER
Very Small	VCR Tape	-10%
Small	Toaster	-05%
Medium	German Shepherd	+0%
Large	Man Sized	+10%
Gigantic	Volkswagen Beetle	+20%

GENERAL

MASS	HEIGHT OF FALL			
	01-05	06-10	11-25	26-40
Very Light	0%	0%	02%	02%
Light	0%	02%	02%	04%
Medium	04%	06%	10%	15%
Heavy	06%	10%	15%	30%
Dense	10%	15%	30%	60%

Ben, Bells & Quag

Thinking himself safe, Ben breaths a sigh of relief as a Water Purification Unit breaks loose because of the blast.

Seeing the 10 foot mass of piping and filters falling in his direction, he takes a second to scream as he dodges and dives out of the way.

Had he not escaped he would have taken 15 d6 WBD and been crushed under the wreckage.

RADIATION LIFEDOSE

Radiation damage can be easily calculated for general use by the following simple method of accumulating and indexing the result.

REMEMBER

- 01 You never really lose your radiation exposure or the resulting tissue damage without high-tech aid. The next time you take exposure damage you start your new accumulation at your previous accumulation or Lifedose level.
- 02 Radiation exposure is by the hour. A 100 Rad area takes 60 minutes to give the victim a full 100 Rad accumulation.

TIME IN MINUTES	RADIATION EXPOSURE MULTIPLIER
01-05	x 0.06
06-10	x 0.12
11-15	x 0.25
16-30	x 0.50
31-45	x 0.75
46-60	x 1.00

EXAMPLE

With a non-fatal, 200 rad accumulation, Andy crosses a hot spot and takes 180 more rads. He now begins radiation symptoms and sickness percentages of a 380 rad exposure. If he recovers, which is likely, he will carry the 380 point Lifedose until further exposure brings it higher.

RADIATION DOSE

DOSE	EFFECT	DEATH
0000-0050	None	n/a
0051-0100	(10%b) NAU,VOMb	n/a
0101-0150	(25%b) NAU,VOM,DIA,FTGb	01% D
0151-0200	(50%b) NAU,VOM,DIA,FTGb	05% D
0201-0300	(92%b) NAU,VOM,DIA,FTGb	20% D
0301-0400	(98%b) NAU,VOM,DIA,FTGa	35% D
0401-0500	(98%b) NAU,VOM,DIA,FTGa	50% D
0501-0750	(99%a) NAU,VOM,DIA,FTG,BMSa	90% C
0751-2500	(99%a) NAU,VOM,FTG,BMS,TERa	99% B
2501-5000+	(99%a) TERa	99% A

SYMPTOMS BEGIN AFTER

- (a) d10 Hours
- (b) 6d10 Hours
- (c) 4d10 Days
- (d) d6 Months

SYMPTOMS

NAU: Nausea
 VOM: Vomiting
 DIA: Diarrhea
 FTG: Weakness
 BMS: Bone Marrow
 TER: Terminal

DEATH OCCURS IN

- (A) d10 Hours
- (B) 4d10 Hours
- (C) 2d10 Days
- (D) d10 x.50 Months

TOLERANCES

This table is set for human like metabolisms. Alien races will differ in radiation tolerances and general symptoms of extreme exposure.

SYMPTOM KEY

(BMS)

BONE MARROW SYNDROME

Anemia, hemorrhage due to the failure of the body's blood clotting mechanisms. Delayed healing rates of d100% are possible. You can reduce the character's CHANCE OF FIGHTING INFECTION by 1 per 100 rads of exposure. All recovery from BMS takes d6 +6 months.

TERMINAL DOSE

(TER)

SYMPTOMS OF TERMINAL DOSE

Hyperexcitability, Lack of Coordination, 75% chance of staggering, harsh or difficult breathing, and intermittent stupor.

GM'S OPTION

Reduce your Lifedose by 10% per year as an option.



RADIATION SHIELDING

Most materials will shield from alpha radiation if they are thicker than a sheet of paper. The primary cause of radiation poisoning are gamma rays created from radioactive isotopes. The following list gives materials and their general value as radiation shielding.

LIGHT VEHICLE	x .75	LIGHT RAD SUIT	x .75
HEAVY VEHICLE	x .50	MEDIUM RAD SUIT	x .50
ARMORED APC	x .25	HEAVY RAD SUIT	x .25
BUILDING	x .75	CONCRETE (1 ft.)	x .25
WOOD (1 ft.)	x .50	EARTH (1 ft.)	x .25
BRICK (standard)	x .50	ICE (1 ft.)	x .25
VESH		SNOW (2 ft.)	x .50
METAL & ALLOY	Full	ANTI-RAD FIELD	Full

TEMPERATURE

Exposure to extremes of temperature will cause damage if adequate protection is not available to the character.

PROTECTION

BUFF

This is absolutely no protection

MINIMAL

This is the lightest or least amount of clothing available.

LIGHT

This is normal summer wear and light foot protection

MEDIUM

Light protection for cooler, spring or fall type climate. May include light jacket.

HEAVY

Winter protection from cold, ice, snow and generally frigid climates. General winter wear.

ARCTIC

Special cold protection that is designed for survival in sub-zero temperatures.

DAMAGE

FROM COLD

PER TWO MINUTE EXPOSURE

	FROM	-200	-174	-149	-124	+1
	TO	-175	-150	-125	+0	+025
Buff		5d6	4d6	3d6	2d6	d6
Minimal		4d6	3d6	2d6	d6	d6x.50
Light		3d6	2d6	d6	d6x.50	n/a
Medium		2d6	d6	d6x.50	n/a	n/a
Heavy		d6	d6x.50	n/a	n/a	n/a
Arctic		d6x.50	n/a	n/a	n/a	n/a

DAMAGE

FROM HEAT

PER ONE HOUR EXPOSURE

	FROM	+100	+126	+151	+176
	TO	+125	+150	+175	+200
Buff		d6x.50	d6	2d6	3d6
Minimal		n/a	d6x.50	d6	2d6
Light		n/a	n/a	d6x.50	d6
Medium		n/a	n/a	n/a	d6x.50

FAHRENHEIT TO CELSIUS

All temperatures are given in degrees Fahrenheit. Convert to Celsius by subtracting (32) degrees and then multiplying the result by (5). Finish by dividing the result by (9).

$$\frac{((\text{Temperature F} - 32) \times 5)}{9} = \text{Temperature Celsius}$$



STARVATION

To survive, any life form must consume a determined amount of food and water.

In situations where intake is low or non-existent, a player character begins to burn food and water reserves. When reserves reach 0 the character begins to take daily damage from starvation and dehydration. Remember that this table is optional.

RESERVES CALCULATION

Every character has food and water reserves that can be tapped in an emergency.

WATER POINTS

Constitution +20 points for the normal individual. Add 1 point for every 10 pounds overweight.

FOOD POINTS

Constitution +20 points for the normal individual. Add 2 points for every 10 pounds overweight.

POINTS NEEDED FOR DAILY SURVIVAL

ACTIVITY	FOOD POINTS	WATER POINTS
Strenuous	28	160 2.0 gal.
High Activity	25	120 1.5 gal.
Normal Activity	20	080 1.0 gal.
Low Activity	15	040 0.5 gal.
No Activity	10	020 1.0 qt.

REMEMBER

- Reduce the character's food and water reserve points by the difference of what they consumed and what they needed for the day.
- At water reserve 0 the character begins to take damage in the form of 1 point of Constitution and d4 Hit Points per day.
- At food reserve 0 the character begins to take d4 hit points per day.
- All Constitution and Hit Points do not regenerate during long periods of water and food deprivation. Restoration of food and water restart the character's regenerative abilities.
- Reserves are easily replenished by over-supply of food and water requirements at a rate of d10 +6 points per day.
- Hotter or drier climates accelerate this loss.

HOT CLIMATES	TEMP FAHRENHEIT	CON LOSS	HPT LOSS
Hot	085-095	x1.00	x1.00
Very Hot	096-109	x1.25	x1.25
Blistering	110-125	x1.50	x1.50
Burning	125+	x2.00	x2.00

EFFECTS OF DEHYDRATION / STARVATION

25% CON Loss:	Nausea, Headache
50% CON Loss:	Giddiness, Hallucinations
75% CON Loss:	Failing Strength
98% CON Loss:	75% Chance Unconsciousnes

Tri Tac Games



FOOD VALUES

See the table for food values. These tables are designed for average human types. Food is listed by value as served in what is generally an average individual portion.

REMEMBER

01 These general tables are optional for GM/Player use in any adverse situations.

FOOD AND VALUES

TYPE	VALUE	TYPE	VALUE
Apples	2.0	Noodles	2.0
Apricots	0.5	Nuts	4.0
Asparagus	0.5	Olives	0.1
Bacon	1.0	Olive Oil	0.5
Bakery Mix	0.5	Onions	0.5
Barley	1.0	Oranges	0.5
Beans	1.5		
Beef	3.0	Pasta	2.0
Beets	0.5	Pasta, Enriched	3.0
		Peaches	0.5
Candy	1.0	Peanut Butter	1.5
Carrots	0.5	Pickles	0.2
Cat Food	1.0	Pie Filling	1.5
Catsup	0.2	Pineapple	2.0
Cereal	1.0	Plums	0.5
Cheese	2.0	Pork Chops	3.0
Chewing Gum	0.1	Potato	1.2
Chicken	2.0	Peas	1.0
Chili	2.5	Pears	1.0
Chocolate	1.5	Prunes	0.5
Cocoa	1.0		
Coconut	1.5	Raisins	1.0
Coffee	0.1	Rice	2.0
Cookies	1.5		
Corn	2.0	Salad Dressing	0.7
Crackers	0.5	Salad Oil	0.6
		Salmon	1.0
Cranberries	0.7	Sauce, Meat	0.3
Cream	0.7	Sardines	2.0
Cream (chemical)	0.1	Sausage, Pork	1.5
Shortening	0.5		
Dessert Gel	1.5	Shrimp	2.0

TYPE	VALUE	TYPE	VALUE
Dog Food	1.0	Soup	1.5
		Spaghetti	3.5
Eggs	1.0	Spinach	0.5
		Starch	1.5
Fish	1.7	Sugar	0.5
Flour, Wheat	0.5		
Flour, Rye	0.7	Tea	0.1
Frankfurter	2.0	Tomato	0.3
Fruitcake	0.5	Tuna, Water Pak	1.5
Fruit, Candied	1.5	Tuna, Oil Pak	2.0
Fruit Cocktail	2.0	Turkey	2.0
Gelatin	0.5	Vinegar	0.5
Grapes	0.5	Yeast	0.5
Ham	2.5	Wild Game	2.5
Hamburger	2.0		
		Beer	1.5
Ice Cream	3.0	Hard Liquor	1.0
		Wine	1.0
Jam, Fruit	0.5	Soda Pop	0.5
Jelly, Fruit	0.4		
Lard	1.5		
Lemon	0.5		
Lunch Meat	1.0		
Macaroni	2.0		
Margarine	1.0		
Marmalade	0.6		
Marshmallow	1.0		
Mayonnaise	1.0		
Milk	1.5		
Molasses	0.5		
Mustard	0.1		
Mushrooms	0.1		

SURVIVAL RATIONS

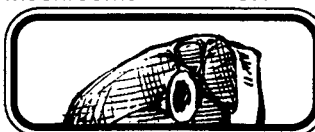
Wholesale	10.0
ICL Military	12.0
Survival	15.0
High Energy	20.0

FRESH FOOD BONUS

Add a + (x 1.05) to any fresh food values.

ALFRED PACKER FOOD PROGRAM

Human Adult	2.0
Human Child	2.2
Carrion	1.5
Road Kill (fresh)	2.0



WHAT IS A PORTION?

An average portion is a few ounces or a reasonable amount.

STRENGTH RELATED DAMAGE

Strength Related Damage is added to many different tables in the game to modify damage results. Index the strength of the attacker by his or her action to find (WBD) damage to the victim.

REMEMBER

Complete surprise by the attacker gives full damage with no modifiers. Non-surprise and face to face situations allow the victim a dodge action.

ATTACKER STRENGTH	PUNCH or KICK	LIGHT OBJECT	MEDIUM OBJECT	HEAVY OBJECT
01-05	d6x .25	d6x .50	d6	2d6
06-10	d6x .50	d6	2d6	3d6
11-20	d6	2d6	3d6	4d6
21-30	2d6	3d6	4d6	5d6
31-40	3d6	4d6	5d6	6d6
41-50	4d6	5d6	6d6	7d6
51-60	5d6	6d6	7d6	8d6
61-70	6d6	7d6	8d6	9d6
71-80	7d6	8d6	9d6	10d6
81-90	8d6	9d6	10d6	11d6
91-99	9d6	10d6	11d6	12d6

EXAMPLE OBJECTS

Light Object Broom Handle, Small Stone
 Medium Object Baseball Bat, Large Rock
 Heavy Object Lead Pipe, Tire Iron

REMEMBER

01 Any Strength Related Damage is controllable by the attacker. Attackers can use any level of strength under their own to base their damage from. This allows a character to "pull a punch", lessen damage and not kill a victim.

Ben, Bells & Quag

Burbor the Dabe, with a Strength of 25, decides to punch Ben Warren, who has just tripped over the Trell and spilled his drink.

With his massive strength, Burbor, can punch for 2d6 points of Whole Body Damage.

He pulls Ben off the floor with one hand and takes aim with a ham sized fist.

Seeing the horror on Ben's face, Burbor lessens his punch to a rating of Strength 5. With a single point of damage he taps the human and puts him back on the floor.

Ben notices the Hat of Unemployment on the Dabes head and discovers the Alien is an electrical engineer of sorts and a class A custodian. Ben hires him on the spot.



PHYSICAL COMBAT

INITIATIVE

Roll a d10 and add it to either your AGL or Martial Arts Skill you intend to use. The highest number has the first action.

HOW DO YOU USE PHYSICAL COMBAT?

Hand-to-hand fighting is the use of DEX and DOD with the decision to attack or defend. Consider your DEX a skill percentage for this use only.

REMEMBER

01 Your DEX multiplied by 5 is your Percentage score for any successful Physical Combat.

$(DEXTERITY) \times 5 = \text{Combat Percentage}$

- 02 Decide to attack or defend.
- 03 To hit an opponent roll under your DEX or Dexterity for a successful attack. Don't forget size modifiers.
- 04 Block a physical attack by rolling a d100 under your Combat percentage. You may also use modifiers from skills. (See Also Pg. 021-022)
- 05 Martial Arts is not one, but a set of 5 separate skills to be developed per discipline you take.
- 06 Every 5 levels of Martial Arts adds a +5% bonus point to your chance to attack or defend.
- 07 Use of Martial Arts gives the use of 1 bonus attack or defense action per 5 levels of skill. This can be used once per game minute or 30 actions.

EXAMPLE

With a Kung Fu, (AO Skill), level of 15 Master Chen can use three different actions per attack, with a +15 to hit attack modifier, during an average minute of combat. Martial Arts can give a player character the ability to do additional damage with such special attacks.

OPTIONAL SIZE MODIFIER

Index the attacker's size to find a combat "to hit" modifier, if any. This is only for physical combat. All sizes are listed in feet of height. AT = Attacker Height in Feet

AT	DEFENDER HEIGHT IN FEET									
	01	02	03	04	05	06	07	08	09	10
01	+0	+0	+05	+05	+05	+10	+10	+10	+15	+15
02	+0	+0	+0	+05	+05	+05	+10	+10	+10	+15
03	-05	+0	+0	+0	+05	+05	+05	+10	+10	+10
04	-05	-05	+0	+0	+0	+05	+05	+05	+10	+10
05	-05	-05	-05	+0	+0	+0	+05	+05	+05	+10
06	-10	-05	-05	-05	+0	+0	+0	+05	+05	+05
07	-10	-10	-05	-05	-05	+0	+0	+0	+05	+05
08	-10	-10	-10	-05	-05	-05	+0	+0	+0	+05
09	-15	-10	-10	-10	-05	-05	-05	+0	+0	+0
10	-15	-15	-10	-10	-10	-05	-05	-05	+0	+0
11	-15	-15	-15	-10	-10	-10	-05	-05	-05	+0

MARTIAL ARTS

Martial Arts is a range of fighting skills that may be divided into several categories of attack and defense. Martial Arts is divided into 5 separate areas of skill. The first is your style of martial arts skill, your ability with the grace and teachings of that one discipline. This is followed by the automatic gain of four areas of skill that start at a skill level of 0. These are:

AO = ACTIVE OFFENSE

Any Punches, Kicks, Chops and other methods of inflicting physical injury to an opponent.

PO = PASSIVE OFFENSE

Arm Locks, Holds, Throws and other methods of controlling movement of an opponent.

AD = ACTIVE DEFENSE

Blocking, Deflecting, Grabbing and other methods of preventing injury or physical incapacitation of oneself by an opponent.

PD = PASSIVE DEFENSE

Dodging, Rolling, Twisting, Evading and other special methods of avoiding an attack.

SPECIAL WEAPONS (SPEC)

SW = Special Weapons or Martial Arts Weapons

AW = Available Weapons

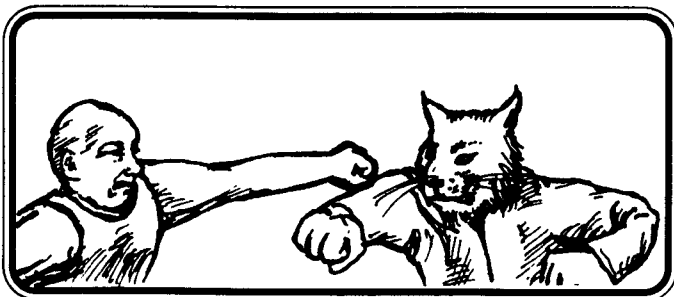
PW = Personal Weapons

STYLE OF DISCIPLINE

USES

SPEC

Wrestling	PO,AD	
Brawling	AO	AW
Boxing	AO,AD	
Street Fighting	AO,AD,	PW
Defendu	PO,AD,	SW
Savate	AO,AD	
Karate	AO,AD,PO,PD	SW
Judo	PO	
Kung Fu	AO,AD,PO,PD	SW
Aikido	PO,PD	
Tae Kwon Do	AO,AD	
Tai Boxing	AO	
Ninjutsu	AO,AD,PO,PD	AW,SW
Knife Fighting	AO,PD	SW
Tantojutsu	AO,AD	SW only
SCA Sword & Shield	AO,AD	SW only
Kendo	AO,AD	SW only
Kymnarn Geratch	AO	
Dabe OhOhOh	AD,PD	



WHAT IF THE OPPONENT HAS A COMBAT ART TOO?

Find the modifier by indexing your levels of skill. This number is added to your skill, Strike or Defend, roll.

SKILL LEVEL OF ATTACKER	Defender's Skill Level						
	01-02	03-04	05-06	07-09	10-12	13-16	17-20
0	+0	-05	-10	-15	-20	-25	-30
01-02	+0	+0	-05	-10	-15	-20	-25
03-04	+0	+0	+0	-05	-10	-15	-20
05-06	+5	+0	+0	+0	-05	-10	-15
07-08	+10	+05	+0	+0	+0	-05	-10
09-10	+15	+10	+05	+0	+0	+0	-05
11-12	+20	+15	+10	+05	+0	+0	+0
13-14	+25	+20	+15	+10	+05	+0	+0
15-16	+30	+25	+20	+15	+10	+05	+0
17-18	+35	+30	+25	+20	+15	+10	+05
19-20	+40	+35	+30	+25	+20	+15	+10

MARTIAL ARTS ATTACK / DEFENSE

These are a small listing of possible martial arts actions. All physical damage (WBD) or (CON) caused by Martial arts attacks is multiplied by a x1.25 from the Number Multiplier Chart. (See Also Pg. 104 & 178)

CHOP

With hands to do Strength Related Damage with the option to stun when used on specific areas.

PUNCH

With fists to do Strength Related Damage.

KICK

Use Strength Related Damage with the option of stun when used on specific vital areas.

PIN

Using martial arts, like skill levels, modifiers are added and a character can attempt to incapacitate a victim. The victim is only held if he fails to roll a d20 under his strength, otherwise the holder must reroll a successful pin each turn until the victim fails his roll.

THROW

If a character chooses to throw an opponent, his martial arts skill is used with any difficulty modifiers. If a victim fails to roll a d20 under his AGL (Agility) a throw is successful.

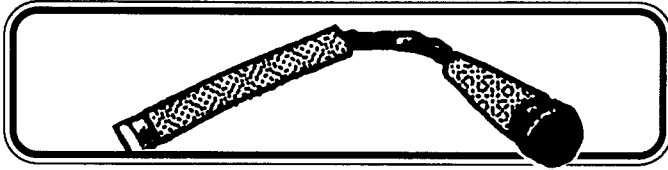
Throwing an individual into a wall or solid object gains the victim an unmodified roll on the Cosh Table. (See Also Pg.108)

STUN

A specific blow to the head to incapacitate or kill a victim. The user can add a +5% bonus on any roll on the Cosh Table when striking in this manner. (See Also Pg. 108)

MARTIAL ARTS WEAPONS

The following is a general list of martial arts weapons. A (T) code gives the weapon the ability to trap or tangle an opponent's weapon. On the decision of the GM a roll can be made to save the trapped weapon from breakage by rolling under a DEX or Martial Arts roll. An E code signifies that a weapon that can entangle an opponent's weapon and prevent its usage.



01 NUNCHAKU (E)

An Okinawan farm implement popular in combative karate training. Damages as a medium to heavy object. (See Strength Related Damage Pg. 114)



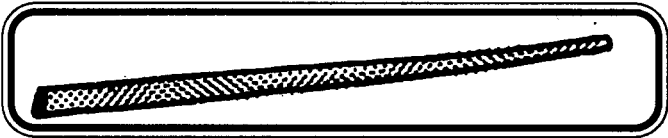
02 BLADE WEAPONS

(Swords, Knives, Throwing Stars and Spikes) (Hooked Swords (T))



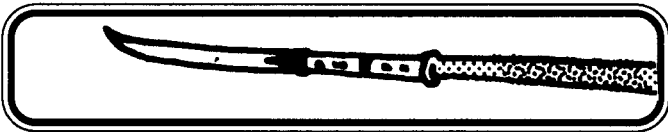
03 PARRY WEAPONS (E)

(Sai (T), Nightstick (Jitte) Kusarigama or Chained Sickle)



04 STAVES

(Staves age usually in 3, 5, and 6 foot lengths. See Strength Related Damage for medium and heavy objects on Pg. 114)



05 POLE ARMS

(Spear, Naginata, Yari, Bisento, Halberd, etc)



06 ODD WEAPONS

(Stars, Spikes, Tetsubishi, Power Tools, Rocks, Furniture, etc. These varied designs may include specially crafted weapons or personal martial arts weapons of unusual form and damage type.)

MARTIAL ARTS & SPECIFIC ATTACK AREAS

Martial arts attacks can be aimed at specific body areas to do damage or immobilize. User of such skills can lighten their attacks to reduce attack results by 1 to 5 letter codes.

BODY AREA	Level of Combat Art			
	01-03	04-07	08-12	13+
FRONT SIDE				
Temple	C	D	E	F
Nose	B	C	D	E
Ear	A	B	C	D
Under Chin	A	B	C	D
Neck, Center	A	B	C	D
Wind Pipe (trachea)	C	D	E	F
Shoulder Area	A	B	C	D
Hollow of Throat	C	D	E	F
Solar Plexus	B	C	D	E
Side / Below Ribs	A	B	C	D
Lower Abdomen	B	C	D	E
Elbow	A	B	C	D
Forearm	A	B	C	D
Wrist	A	B	C	D
Back of Hand	A	B	C	D
Fingers	A	B	C	D
Thigh	A	B	C	D
Knee	B	C	D	E
Shin	B	C	D	E
Ankle	A	B	C	D
Instep	A	B	C	D
ATTACK TO BACK				
Base of Skull	B	C	D	F
Center of Neck	C	D	E	F
7th Vertebra	B	C	D	F
Center of Back	B	C	D	E
Kidney L or R	C	D	E	F

RESULTS CODES

- A MINOR
Light Pain / Fast Stun
- B LIGHT
Pain, Medium Light Stun (See Cosh Pg. 108)
- C MAJOR
Heavy Pain / Numbness / Medium Stun (Cosh +5%)
- D SERIOUS
Agonizing Pain / Temporary Paralyzation / Medium Stun / (Cosh +07%)
- E CRITICAL
Agonizing Pain / Numbness / Temporary Paralyzation / Hard Stun / Multiply Damage by x(1.25) / Cosh +10%
- F POSSIBLE KILL
As E with 80% chance of causing a Death Shock

COMBAT ACTION INDEX

This is a new feature of the Tri Tac System that helps the player deal with movement and physical action in different situations. It suggests areas of modifiers and gives a detailed look at the action and its possible results.

ATTACK TACTIC

Punch

If the attack fails, the defender gets a +5 initiative on the next turn. Damage to the defender from blocking a punch is the attacker's normal Strength Related Damage multiplied by x(.12).

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144

Punch

If the attack fails, the defender gets a +10 on initiative on the next turn. The defender pushed the punch to the side and takes no damage.

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144

Kick

If the attack fails, the defender gets a +10 initiative on the next turn. Damage to the defender from blocking a punch is the attacker's normal Strength Related Damage multiplied by x (.25).

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144

Kick

If the attack fails, the defender gets a +15 on initiative on the next turn. The attack defender pushed the punch to the side and takes no damage.

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144

Grapple

If a character can successfully grapple a defender, the next turn he or she can attempt a throw, or prevention of the drawing of a weapon. Grapple can also be used to prevent a firearms or blade attack, depending on the situation and the GM's decision. If the grapple fails, the defender gets a +15 on initiative on the next turn. If it succeeds the defender only gets a +5 on initiative the next turn.

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144
Strangulation Damage	Pg. 104

Grapple

The attacker has a +10 bonus chance to grapple but receives an automatic return attack from the defender.

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144
Strangulation Damage	Pg. 104

DEFENSE TACTIC

Block

Parry

Block

Parry

Push Away

Attack

Throw

The attacker has successfully grappled with a defender and now can throw him, her, or it. During this throw the attacker is open to either an attack or the chance the victim can grab him or a near object.

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144
Strangulation Damage	Pg. 104
Fall Damage	Pg. 110
Bone Breakage	Pg. 135
Cushing	Pg. 108

Immobilize

If the attacker has successfully grappled with a defender and now can immobilize him, her, or it. If this maneuver fails the victim is still able to return an attack or break free.

Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144
Strangulation Damage	Pg. 104
Fall Damage	Pg. 110
Bone Breakage	Pg. 135
Cushing	Pg. 108

Blade Combat

If the attack fails, the defender takes no damage. Damage to the defender from blocking a blade attack goes directly to the shield or extremity used to block.

Blade Damage	Pg. 106
Armor	Pg. 138
Strength Related Damage	Pg. 114
Agility Modifiers	Pg. 021
Personal/Stress Modifiers	Pg. 022
Moving Animals/Objects	Pg. 144

Blade Combat

If the attack fails, the defender takes no damage and is able to attempt to counter attack if they are armed. A successful Parry simply prevents the weapon from making contact. A Parry can only be used to stop a stab or thrust attack. The defender gains a +15 initiative bonus on the next combat round.

Blade Damage	Pg. 106
Armor	Pg. 138
Strength Related Damage	Pg. 114
Agility Modifiers.	Pg. 021
Personal/Stress Modifiers.	Pg. 022
Moving Animals/Objects	Pg. 144

Blade Combat (Slash, Chop)

If the attack fails, the defender takes no damage and is able to attempt to counter attack if they are armed. Damage to the defender from blocking a slash or chop attack goes directly to the shield or extremity used to block. The defender gains a +5 initiative bonus on the next combat round.

Blade Damage	Pg. 106	Armor	Pg. 138
Personal/Stress Mods.	Pg. 022	Agility Mods.	Pg. 021
Strength Damage	Pg. 114	Moving Objects	Pg. 144

Grab

Break Free

Block

Parry

Block

TOXINS

Toxins and poisons are any material, ingested, inhaled, or contacted, that do 3 possible types of damage.

DAMAGE EFFECT

A CAUSTIC TO TISSUES

Does d4 points of damage per level of toxin, per hour, until it is neutralized. Use (WBD) / Hit point damage.

B NEURAL TOXINS

Any substance that slows or damages nerve function in living tissue. Affects CON / Constitution.

C HEMO TOXINS

Any substance that impairs or damages the blood transport system. Affects CON / Constitution.

TOXIN RATING

Each poison listed has an assigned or a variable level of toxic effect. This level indexed is the damage to Hit Points or Constitution per hour. This damage continues until the victim passes through the CRITICAL TIME of poisoning.

TOXIN RATING	WBD/CON LOSS	TOXIN RATING	WBD / CON LOSS
01	d4 x .25	06	d6 +01
02	d4 x .50	07	d6 +02
03	d4	08	d6 +03
04	d4 +01	09	d6 +04
05	d6	10	d6 +06

REMEMBER

- 01 Roll damage once per hour until the toxin passes the critical time.
- 02 Poison antidotes for general classes of poisons reduce the loss of Hit Points and Constitution by d4 points per hour during the critical time of the poison's effect.
- 03 Specific poison antidotes reduce any WBD or (CON) Constitution damage by d10+1 points per hour during the critical time.
- 04 Specific toxin antidotes only affect a specific type or small range of poisoning. The wrong antidote type has no effect. It takes a minimum of 1 hour for each antidote test to determine effectiveness without the proper analysis of the toxin.
- 05 After the critical hours of poisoning have passed the victim begins to recover Constitution normally.
- 06 Toxins may have lingering side effects or lengthy recovery periods.

SYMPTOMS OF TOXIC EXPOSURE

a Nausea	i Coma
b Headache	j Muscle Tightness
c Vomiting	k Confusion
d Cramps	l Dizziness
e Tremors	m Pain
f Diarrhea	n Fatigue
g Difficult Respiration	o Visual Impairment
h Convulsions	



TYPES OF TOXINS

These toxins are generally effective on humans and animals though some individuals may have a greater or lesser resistance to damage and slightly differing critical times. Toxin effects are the decision of the GM.

ANIMAL POISONS

Rating	01-08	Critical Time	4d6 hrs.
Effect	Any	Symptoms	a b c d e g h m

(Stings, Bites, and Contact Toxins)

PLANT POISONS

Rating	01-10	Critical Time	4d6 hrs.
Effect	Any	Symptoms	a b c d e f g h i j

(Mostly Ingested Plant Toxins)

MISCELLANEOUS PESTICIDES

Rating	01-06	Critical Time	3d4 hrs.
Effect	B	Symptoms	g h

(Damages Respiration)

RODENTICIDES

Rating	01-06	Critical Time	3d10 hrs.
Effect	B	Symptoms	g j

(Damages Heart)

NITROGEN COMPOUNDS

Rating	01-08	Critical Time	d6 hrs.
Effect	C	Symptoms	a b l m k

(Damages Blood / Respiration)

HALOGENATED HYDROCARBONS

Rating	01-10	Critical Time	d4 +01 hrs.
Effect	C	Symptoms	a b c d e g h i

(Damages Heart)

ALCOHOLS AND GLYCOLS

Rating	01-04	Critical Time	3d4 hrs.
Effect	B	Symptoms	a b c d g h

(Drinkable Alcohol Rates 1 at 80 Proof, 2 at 151 Proof and 3 in Pure Ethyl Form)

ESTERS, ALDEHYDES, KETONES

Rating	01-10	Critical Time	2d4 hrs.
Effect	A	Symptoms	b c k g l m

(Damage to Tissues)

HYDROCARBONS

Rating	01-08	Critical Time	3d6 hrs.
Effect	A	Symptoms	a b c f g m

(Damage to Tissues)

CORROSIVES

Rating	01-10	Critical Time	3d6 hrs.
Effect	A	Symptoms	c m

(Damage to Tissues)

METALLIC POISONS

Rating 01-10 Critical Time 3d6 hrs.
 Effect C Symptoms a b e h j m
 (Damage to Circulatory System)

CYANIDES, SULFIDES

Rating 01-10 Critical Time 2d6 hrs.
 Effect B Symptoms a b c e h k
 (Damage to Central Nervous System)

VEHICLE IMPACT

Index the Miles Per Hour (MPH) speed of the vehicle in the speed chart below. Read across the chart to find the damage done to a character during an accident. Don't forget optional damage modifiers for vehicle structure / protection.

VEHICLE MPH	DAMAGE (WBD)	CHANCE OF BONE BREAKAGE	NUMBER OF BONES BROKEN
000-025	d10	10%	d4 x.50
026-036	2d10	20%	d4 -1
037-050	3d10	40%	d6 -2
051-075	4d10	80%	d6
076-100	4d10 x2	85%	d6 +1
101-200	4d10 x3	95%	d6 +2
201-300	4d10 x4	98%	d6 +4
301-400	4d10 x5	99%	d6 +6

MEDICAL NOTES

Randomize the bones broken from the body tables and the Bone Breakage Table. (See Also Pg. 126 & 135)

IMPACT MODIFIERS

In any vehicle mishap, damage will be modified by any of a large number of modifiers. Use the following for Vehicle Construction, Position, and Impact modifiers.

VEHICLE SIZE	CONSTRUCTION	MODIFIER
Compact	Fragile	x2.00
Midsized	Fragile	x1.50
Fullsized	Fragile	x1.00
Compact	Sturdy	x1.50
Midsized	Sturdy	x1.00
Fullsized	Sturdy	x0.75
Compact	Tough	x1.00
Midsized	Tough	x0.75
Fullsized	Tough	x0.50

VICTIM IN REAR SEAT

	MODIFIER
Unrestrained	x1.00
Lap Belt Only	x0.75
Lap & Shoulder Belt	x0.50
Air Bag	x0.25

VICTIM IN FRONT SEAT

	MODIFIER
Unrestrained	x1.25
Lap Belt Only	x1.00
Lap & Shoulder Belt	x0.75
Air Bag	x0.50

IMPACT MODIFIERS

	MODIFIER
Multiple Vehicle Head-On Impact	x2.00
Glancing Impact	x0.75
Vehicle Hit in Rear	x0.50
Victim on Impact Side of Vehicle	x1.50
Vehicle Rolls 1 or 2 Times	x1.50
Vehicle Rolls 3 to 5 Times	x2.00
Impact into Unyielding Object	x3.00
Protective Interior Padding	x0.75
Heavy or Padded Clothing	x0.75



PEDESTRIAN IMPACT

If the victim knows he or she is about to be hit by a vehicle there is a chance of a controlled impact to lessen the WBD damage. The same impact chart is used from the previous section. Index the victim's modifiers.

SURPRISE Damage x2.00

The victim takes damage from the vehicle as if the vehicle were traveling at twice its current speed.

MODERATE SURPRISE Damage x1.50

The victim has a few seconds to realize he's about to be hit by a vehicle. This gives no chance to avoid being hit, but the individual can partially control his position and lessen trauma.

NON-SURPRISED Damage x1.00

Victim takes standard damage and bone breakage as he or she rolls into the impact.

PREPARED Damage x0.75

In this instance the victim has time to flow with the impact and lessen the damage by use of any Martial Arts Training or Stunt Acrobatics. (See Also Pg. 115)

OTHER MODIFIERS

Skills in any of a number of disciplines may ease impact damage if the character is not surprised or prepared:

	SKILL LEVELS			
EXAMPLE	01-05	06-10	11-15	16-20
Martial Arts AD Training	x0.75	x0.50	x0.25	x0.25
Stunt Training	x0.50	x0.25	x0.25	x0.25
Acrobatic Training	x1.00	x0.75	x0.50	x0.25

REMEMBER

These modifiers are optional for the GM. The GM may use any or a number of reducing modifiers to change final WBD damage. Remember that they are simple guidelines to cover as many possibilities as the designer can give.

VEHICLE RUN OVERS

Most serious of the vehicle impacts on unprotected life is the run-over. While most vehicle impacts throw a victim d6 feet per 10 MPH of speed, there is a small chance the victim may be dragged under the vehicle. In most cases this causes devastating structural trauma to the victim, if not immediate death. Index the victim's posture at the time of collision to find the chance of a run-over.

POSTURE OF VICTIM	VEHICLE FRONT	VEHICLE SIDE
Standing	10%	05%
Kneeling	15%	07%
Crawling	25%	10%
Prone	40%	12%

EFFECTS OF RUN OVER

Roll a d100 on the table below to determine the effect of the run over on the victim.

- 01-50 RUN OVER
Multiply damage by a x1.25 modifier.
- 51-75 WHEEL IMPACT
One or two wheels impact into the victim to multiply final WBD damage by a x1.50 modifier
- 76-85 DRAGGED
Victim is dragged by the vehicle. Multiply the impact damage by x2.00
- 86-95 WHEEL IMPACT & DRAGGED
Multiply final damage by a x3.00 modifier and roll a 40% chance of a crushed or severed limb.
- 96-98 IMPACT, DRAGGED, & MANGLED
Multiply final damage by a x4.00 modifier and roll a 65% chance of a crushed or severed limb.
- 99-00 HEAD IMPACT
Head crushed by impact, instant death

VEHICLE COMBAT

For car-to-car combat we recommend use of common sense. Most anti-grav and flying vehicles will also damage with their ability to achieve higher speeds. Modify damage from low speed grav or hover vehicle hits by a multiplier of x.75 or less. Combat driving and pilot skills may also be very helpful in stress filled situations or rush hour traffic.

VEHICLE DAMAGE

After a collision there remains the question of 'Is it Drivable?' Index speed and optional modifiers to find the condition of the vehicle.

SPEED	01-05	06-10	11-25	26-35	36-50	51-75	76+
Compact	+0	+05	+10	+15	+20	+25	+30
Midsized	-05	+0	+05	+10	+15	+20	+25
Fullsized	-10	-05	+0	+05	+10	+15	+20
APC	-15	-10	-05	+0	+05	+10	+15

IMPACT INTO

Immobile Object	+20	Very Solid Object	+05
Slightly Yielding Object	+0	Yielding Object	-05

AREA HIT MODIFIERS

The location of impact, age of the car, its construction techniques are also serious modifiers to contend with. Early automobiles were designed for strength. Later models became lighter and easier to damage to save the lives of passengers. Anything is possible on other worlds.

HIT IN	ENGINE	REAR	SIDE
Older Simple Models	- 05%	- 05%	- 05%
Newer Complex Models	+15%	+15%	+15%
Wheels	+15%	- 10%	+ 05%
Transaxle	+20%	+05%	+ 20%

GAS TANK HITS

Any rear hits have a flat 25% chance of rupturing a gas tank. Roll an additional 25% chance of the gas igniting with 6d6 Burn per gallon in the fireball. Repair time is in hours.

VEHICLE CONDITION

	Drivable	Repair Time
01-25 DINGED	98%	2d10
26-50 DAMAGED	75%	3d10
51-75 CRIPPLED	50%	4d10
76-85 CRITICAL	25%	6d10
86-95 DEMOLISHED	10%	8d10
96-98 TOTALED	05%	n/a
99-00 SCRAP	n/a	n/a

VEHICLE WEAPONS

Surprisingly, most small arms fire will not penetrate a vehicle mid-sized or larger vehicle. Armor piercing rounds and rockets are another story altogether. Hits to engines and electronics should be worked out by the GM. Most weapons fire that punches through a gas tank will not ignite it. Most small arms fire that damages a vehicle simply causes the engine or transmission to stop functioning, very rarely with spectacular effects.

COMBAT DRIVING

Combat Driving is the art of putting tons of moving steel and plastic through near acrobatic moves and keeping the passengers alive. Everyone is assumed to be able to drive. Use Combat Driving only to make those fancy turns, spins, swerves, harrowing two-wheeled stunts and dashes through traffic that save lives or get someone somewhere on time. All optional Stress and skill modifiers can apply. (See Also Pg. 021-022)

DISEASE

This set of tables allows you to design an infection, the pathological effect, weakness, and symptoms.

SEQUENCE OF INFECTION

- 01 Check for CHANCE of catching the infection on a d100. This is the flat percentage that exposure to the disease will result in infection. Randomize effect and general transmission.
- 02 Roll a d100 on the SEVERITY OF INFECTION table.
- 03 Randomize symptoms from the SYMPTOMS chart. Also see the HEALTH PROBLEMS MODIFIER table.
- 04 Generate time and medical weakness of the infection.
- 05 Roll the death percentage for NPC characters.
- 06 Roll for general recovery time.

TRANSMISSION

Roll a d100 for the disease carrier (vector) and a d100 for the disease-causing agent.

CARRIER / VECTOR

01-05	A	01	Plant Vector
06-10	B	02	Food Source
11-25	C	03	Common Animal Vector
26-50	D	04	Insect Vector
51-85	E	05	Contact with Victim
86-90	F	06	Contact With Infected Material
91-95	G	07	Uncommon Animal Vector
96-97	H	08	Waterborne
98-99	I	09	Airborne
00		10	Roll Twice again for 2 different carriers.

INFECTION

Roll a d100 for a percent chance of the disease's ability to infect the victim who is exposed to it. This becomes the future percentage of contracting that disease.

INFECTING AGENT

01-75	Bacteria
76-95	Virus
96-98	Multicellular Organism
99-00	Parasite

SEVERITY OF INFECTION	NUMBER OF SYMPTOMS				CRITICAL CHANCE
	AB	CD	E	F	
01-75	Light	d4	no	no	no
76-85	Medium	d4	d4	no	03%
86-90	Heavy	d4	d4	d4	20%
91-95	Serious	d4	d4	d4	50%
96-98	Dangerous	d4	d4	d4	d4x.50
99-00	Terminal	d4	d4	d4	98%

CRITICAL CHANCE

The Critical Chance is the percentage an infection will go into a critical phase where death could occur. Randomize the symptom types from the tables in the next section. Randomize the chance of death if the victim goes CRITICAL.



INCUBATION TIME

All diseases have an incubation time before they become active. Randomize this time by rolling a d100.

TIME IN DAYS

01-05	1 day	76-85	d6 +06 days
06-50	d4 +01 days	86-95	d6 +10 days
51-75	d4 +06 days	96-98	d6 +15 days
		99-00	d6 +30 days

INFECTION WEAKNESSES

01-05	A	01	Chemical Inhibitor
06-50	B	02	Bacterial Inhibitor
51-75	C	03	Anti Viral
76-85	D	04	Broad Spectrum Antibiotic
86-95	E	05	Antibiotic Specific
96	F	06	Changes in Body Chemistry
97	G	07	Immune Globulin
98	H	08	Treat Symptoms / Complications Only
99	I	09	No Treatment Available
00		10	Roll Twice again for 2 Weaknesses

SYMPTOMS KEY

TABLE A

Roll a d20

01	No Symptoms
02	Mild Gastritis
03	Loss of Balance
04	Fever +d4 Degrees
05	Hypersensitivity
06	Blocked Sinus
07	Loss of Appetite
08	Skin Color Flush
09	Mild Stomach Cramps
10	Sore Throat
11	Muscle Stiffness
12	Light Sensitivity
13	High Thirst
14	Watering Eyes
15	Abnormal Feeling
16	Migraine Headache
17	Sound Sensitivity
18	Shortness of Breath
19	Appetite Increase
20	Irritability

TABLE B (optional)

Roll a d20

01	Lethargy
02	Awful Feeling
03	Dizziness
04	Sweating
05	Itching
06	Nose Bleed
07	Hiccups
08	Drowsiness
09	Insomnia
10	Depression
11	Shakes
12	Mild Rash
13	Irritation
14	Weakness
15	Aches
16	Red Eyes
17	Headache
18	Tingling
19	Numbness
20	Fainting

TABLE C

Roll a d10

01	Lung Congestion
02	Swelling in Joints
03	Fever +d6 Degrees
04	Bleeding, Eyes/Ears
05	Extremity Numbness
06	Internal Swelling
07	Blurred Vision
08	Intense Cramps
09	Lack Coordination
10	Disabling Cramps

TABLE E

Roll a d10

01	Open Sores
02	Loss of Hearing
03	Loss of Sight
04	Paralyzation
05	Fever +4d4 Degrees
06	Hallucinations
07	Glandular Failure
08	Major Weight Loss
09	Internal Bleeding
10	Lung Collapse

TABLE D (optional)

Roll a d10

01	Vomiting
02	Boils
03	Diarrhea
04	Ulcerations
05	Convulsions
06	Hair Loss
07	Mental Lapse
08	Tremors
09	Choking
10	Dehydration

TABLE F

Roll a d10

01	Kidney Failure
02	Coma
03	Liver Failure
04	Heart Failure
05	Mental Breakdown
06	Digestive Failure
07	Muscle Breakdown
08	Bloodclotting
09	Leukemia
10	Internal Collapse

STATISTICS REDUCTIONS FROM MEDICAL PROBLEMS

These annoyances are the temporary or continuing modifications on a character's statistics when affected by health or (WBD) wounds.

TYPE	STR	DEX	AGL	WIZ	ACC	DOD	THR
Nausea			-01		-01		
Drowsiness		-01	-01	-01			
Hiccups		-02		-03			
Watery Eyes		-02		-01			
Sneeze	-02	-04	-02	-06	-04	-06	
Minor Cramps	-01	-01	-01	-01		-01	
Shakes	-01	-02	-01	-02	-01		
Headache	-01	-01		-01			
Migraine	-02	-03	-01	-03	-01	-02	
Insomnia	-01	-01	-01	-01	-01	-02	-03
Light Cough	-01		-01	-01			
Heavy Cough	-03		-02	-02			
Weakness	-02	-01			-01	-02	
Dizziness	-03	-02	-03	-03	-03	-02	
Cramps	-02	-03	-04	-03	-04	-04	
Vomiting	-04	-03	-03	-05	-03	-05	
Fever	-02	-01	-01	-01	-01	-02	-04
Blurred Vision		-04		-05	-01	-06	
Numbness	-04	-06	-03	-01	-04	-06	

PAIN / STUN

Light Pain	-01	-01	-02	-01	-02	-01	
Heavy Pain	-02	-02	-04	-02	-04	-02	
Agony	-06	-06	-06	-02	-07	-08	-09
Light Stun	-03	-03	-05	-02	-03	-05	-04
Medium Stun	-05	-05	-07	-03	-05	-07	-06
Heavy Stun	-06	-06	-09	-04	-06	-09	-08

HEAD IMPACT

TYPE	STR	DEX	AGL	WIZ	ACC	DOD	THR
Graze A	-01	-07	-05	-05	-04	-02	
Graze B	-04	-10	-07	-03	-10	-06	-06
Cosh	-04	-04	-04	-02	-04	-05	-05

MUSCLES

	STR	DEX	AGL
Sprain	-04	-02	-05
Torn Ligament	-08	-04	-09
Torn Muscle	-09	-06	-09

HEALING TIME

d10+2 Days
d6 +2 Weeks
d4 Months

BONES

	STR	DEX	AGL
Bruised	-01	-01	-01
Fractured	-04	-06	-08
Compound Break	-08	-09	-09
Crushed	-10	-10	-12

HEALING TIME

d4 Weeks
d4 Months
d4 +2 Months
d4 +6 Months



MEDICAL NOTES

Damaged bones and muscles affect only the specific areas they are located in. Some statistics may not be affected due to the location of the injury. Use logic when utilizing these complex modifiers. See the MEDICAL SKILLS section for controlled healing rates and treatment time. (See Also Pg. 027)

REMEMBER

- 01 During critical illness a character's constitution and Hit Points do not normally regenerate.
- 02 Constant medical care can restore d4 points of CON Constitution per day during the treatment of an illness.

TREATMENT

Treatment with the proper type of drugs, medical procedure, or chemical agents can give a bonus to stop the infection.

CRITICAL PHASE

As a character enters the CRITICAL PHASE of a disease he or she begins to roll on the FIGHTING INFECTION table in the hopes of breaking the grip of the infection.

REMEMBER

- 01 Total all Health Modifiers.
- 02 Roll a d20 every 24 hours to lose or gain constitution as the victim fights the illness.
- 03 At the end of the DURATION the character will automatically break the illness and begin a normal recovery.
- 04 Constitution gain during the fighting of illness does not rise above the character's original CON score.
- 05 A doctor can aid a victim with a +1 modifier per three levels of PATHOLOGY. Any general medical skills adds +1 per five levels of skill.

DRUGS

DRUGS	MODIFIERS
01 Use of Proper Drugs	+02
02 Use of Almost Proper Drugs	+01
03 Use of Wrong Drugs	-01
04 Use of Allergenic Drugs	-02
05 Use of Highly Allergenic Drugs	-03
06 Compounding Use of Different Drugs	-02

CONDITIONS

CONDITIONS	MODIFIERS
01 Lack of Heat / Chill	-02
02 Damp or Wet Area	-02
03 Lack of Sanitation	-01
04 Lack of Professional Health Care	-01
05 Less Than Half Hit Points	-01
06 Less Than 25% of Hit Points	-02

RESULT OF FIGHTING INFECTION

01	Character Loses	2d6+1	Constitution
02-03	Character Loses	d4+1	Constitution
04-06	Character Loses	2	Constitution
07-08	Character Loses	1	Constitution
09-12	Character is Stable		
13-14	Character Gains	1	Constitution
15-17	Character Gains	2	Constitution
18-19	Character Gains	d4+1	Constitution
20	Infection Breaks		Begin Recovery.

DESIGNER'S NOTES

Each of the diseases listed in this section has a standard survival percentage usable for NPC's or a larger population.

COMMUNICABLE DISEASE

Some believe many of the old plagues and disease horrors of the past are gone for all time, banished by the miracle of modern medical technology. Unfortunately man or nature often has a way of making a disease resurface again to infect the unwary.

Care should be used by the GM when using the more virulent of these diseases. Remember the survivor may possess an immunity from past vaccination.

IMMU = Permanent Immunity

COMMON COLD VIRUS

Transmission:	6
Chance:	65%
Duration:	07d
Symptoms:	A4,6,8,15
Critical:	02%
Weakness:	BH
10% chance untreated colds lead to pneumonia.	

INFLUENZA VIRUS

Transmission:	5
Chance:	55%
Duration:	04d
Symptoms:	A11,B10,,B2,B11
Critical:	03%
Weakness:	CDH
	B14,15,C8,D1
	D3,D10

10% chance untreated flu leads to pneumonia.

PNEUMONIA VIRUS

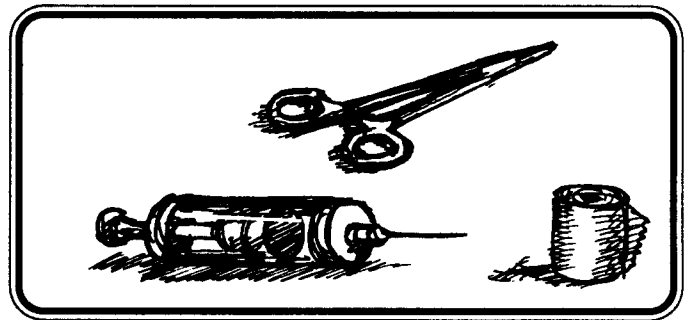
Transmission:	5
Chance:	25%
Duration:	14d
Symptoms:	A7,18,B3,B11,B14
Critical:	10%
Weakness:	C
	C1,C3,E10

35% chance untreated pneumonia kills.

SMALLPOX VIRUS

Transmission:	7,8
Chance:	40%
Duration:	15d
Symptoms:	A4,B12,B13,B17
Critical:	15%
Weakness:	E
	D2,E1,E9

10% chance untreated smallpox kills. IMMU



CHOLERA BACTERIA

Transmission:	6,7,8
Chance:	35%
Duration:	14d
Symptoms:	D1,D3,D10,E8
Critical:	75%
Weakness:	BH

50% chance untreated cholera kills.

TYPHOID BACTERIA

Transmission:	6,7,8
Chance:	40%
Duration:	16d
Symptoms:	B12,C3,D2,E8
Critical:	40%
Weakness:	BDE
	E9,F6

25% chance untreated typhoid kills. IMMU 65%

BUBONIC BACTERIA

Transmission:	1,3,7
Chance:	50%
Duration:	30d
Symptoms:	B14,C3,D2
Critical:	75%
Weakness:	ABEH
	D7,E9,F3

50% chance untreated bubonic plague kills.

PNEUMONIC BACTERIA

Transmission:	3,7,8
Chance:	75%
Duration:	30d
Symptoms:	B14,C3,D9
Critical:	90%
Weakness:	ABD
	E10,F2

85% chance untreated pneumonic plague kills.

TUBERCULOSIS BACTERIA

Transmission:	6,7,8
Chance:	15%
Duration:	10 years
Symptoms:	A7,8,18,
Critical:	25%
Weakness:	AD*
	B4,B11, B14
	C1,C3,C10,D10,E8,E9,E10

Patient relapse every d6 months, 15% chance of death. Liver failure common if the victim drinks alcohol during treatment. Light Drinker 02% Moderate Drinker 07% Heavy Drinker 15%

YELLOW FEVER VIRUS Transmission: 2
 Chance: 75% Duration: 14d
 Symptoms: A11,B15,B11 Critical: 55%
 C3,E9,F3 Weakness: AD
 25% chance untreated yellow fever kills. IMMU

MALARIAL PARASITE Transmission: 2
 Chance: 50% Duration: 10 years
 Symptoms: B2,B4,B11,B14 Critical: 20%
 B15,B17,C3,D8,F2 Weakness: AH
 Patient relapse every d12 months. 30% IMMU

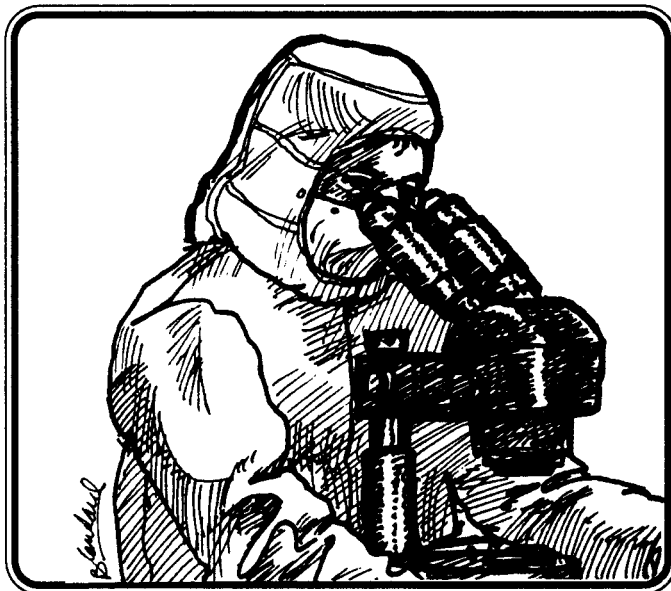
DENGUE FEVER VIRUS Transmission: 2
 Chance: 40% Duration: 14d
 Symptoms: B10,B12,B15 Critical: 25%
 B17, F9 Weakness: C
 10% chance untreated denuge fever kills. IMMU

ANTHRAX BACTERIA Transmission: 5,7,8
 Chance: 85% Duration: 21d
 Symptoms: B2,B3,D1,D2 Critical: 85%
 E9,E11 Weakness: E
 75% chance untreated anthrax kills.

POLIO VIRUS Transmission: 7,8
 Chance: 10% Duration: 14d
 Symptoms: A4,B14,B17,D3 Critical: 25%
 E4,E7,F7 Weakness: E
 Polio leaves permanent paralizaton (d100 %) of an area of the nervous system) IMMU

COLORADO TIC BACTERIA Transmission: 2
 Chance: 20% Duration: 14d
 Symptoms: A11,B2,B12,B14 Critical: 60%
 B17,C3,D3,E4 Weakness: H
 E9,F2,F9
 40% chance untreated Col. tic fever kills.

MENINGITIS BACTERIA Transmission: 7
 Chance: 60% Duration: 14d
 Symptoms: A11,B17,C3,D1 Critical: 75%
 D7,E8,F2 Weakness: AE
 65% chance untreated meningitis kills.



WOUND INFECTION

As a character takes minor damage he or she runs the risk of wound infection.

REMEMBER

- 01 Index the characters type of Wound for the Percent Chance of Contamination
- 02 Roll over the listed percentage to avoid an infection.
- 03 If the roll fails go to SERIOUS.

PERCENT CHANCE OF CONTAMINATION

WOUND	STERILE	CLEAN	DIRTY	FILTHY
Scratch	02%	10%	25%	40%
Cut	05%	15%	35%	55%
Deep Cut	10%	20%	45%	65%
Puncture	20%	30%	55%	75%
Puncture, Deep	30%	40%	65%	85%
Puncture, -Major Organ	45%	55%	80%	95%

SERIOUS INFECTION

- 01-50 Wound takes double the normal time to heal with a 05% chance of going to table A or B below.
- 51-75 Wound takes triple normal time to heal with a 10% chance of going to table A or B.
- 76-85 Wound takes triple normal time to heal with a 25% chance of going to table A or B.
- 86-95 Wound takes triple normal time to heal with a 50% chance of going to table A or B.
- 96-98 Wound takes triple normal time to heal with a 75% chance of going to table A or B.
- 99-00 Wound will not heal, go to table A or B.

TABLE A

FOR NORMAL WOUNDS

- 01-75 **GANGRENE**
 Symptoms: Swelling, Tissue Destruction
 Critical: 40%
 Type: Bacterial
 Weakness: D,E, Removal of Necrotic Tissue
- 76-99 **GAS GANGRENE**
 Symptoms: Rapid Tissue Destruction, Swelling, Fever
 Critical: 75%
 Type: Bacterial
 Weakness: D,E, Removal of Necrotic Tissue
- 00 **GAS GANGRENE + TETANUS**
 Symptoms: As 76, See Tetanus Bacteria below.

TABLE B

FOR PUNCTURE WOUNDS

- 01-75 **TETANUS**
 76-98 **TETANUS + GANGRENE**
 99-00 **TETANUS + GAS GANGRENE**

TETANUS BACTERIA Transmission: 8
 Chance: 05% Duration: 14d
 Symptoms: A9,C6,C10,E4 Critical: 60%
 25% Untreated tetanus kills. Weakness: DG



BACTERIAL FOOD POISONING

If spoiled, unclean or rotten food is consumed, the player character risks the chance of several forms of contamination or poisoning. Index type of contamination by the roll of a d100.

WATER CONTAMINATION

- 01-50 No Contamination
- 51-75 Bacterial
- 76-85 Amebiasis
- 86-98 Poisoning level d4
- 99-00 Poisoning level d4 +4

FOOD CONTAMINATION

- 01-50 Molds, slimes, general decay
- 51-75 Bacterial
- 76-85 Salmonella
- 86-95 Amebiasis if fresh, if not go to 51
- 96-00 Botulism if canned, if not go to 51

BACTERIAL	Transmission: 6
Chance: 90%	Duration: 3d
Symptoms: A2,B2,B14 C8,D1	Critical: 02%
D3,D10,D14	Weakness: ADG

SALMONELLA BACTERIA	Transmission: 6
Chance: 65%	Duration: 6d
Symptoms: A2,B2,B14,C8,	Critical: 25%
D1,D10,D3	Weakness: ADG

AMEBIASIS PARASITE	Transmission: 2,4,5,6,8
Chance: 90%	Duration: 5 years
Symptoms: A2,B11,C3,E9,F6	Critical: 15%
	Weakness: A

BOTULISM BACTERIA	Transmission: 6
Chance: 75%	Duration: 18d
Symptoms: A16,C7,8,E4,8,F2	Critical: 85%
	Weakness: Anti-Toxin

85% chance Botulism Toxin will kill without specific botulinus anti-toxin.

CHEMICAL POISONING

See the Toxin section of damage tables on Pg. 118.

RADIATION POISONING

See Radiation Exposure and Effects Pg 111.

PHASE SICKNESS

See FTL: 2448 Book 2 Under **Phase Drives**.

HEPATITIS

Another danger of contamination with human or animal wastes is hepatitis.

HEPATITIS A VIRUS	Transmission: 1,3,6,7
Chance: 50%	Duration: 8w
Symptoms: A4,7,B2,D1,E8,F3	Critical: 10%
	Weakness: GH

40% chance of relapse if the patient does not rest for d8 weeks. Can be called Jaundice. IMMU

HEPATITIS B VIRUS	Transmission: 6
Chance: 60%	Duration: 8w
Symptoms: A7,B2,E8,F3	Critical: 25%
	Weakness: H

70% chance of relapse if the patient does not rest for 8 weeks.

HEPATITIS C VIRUS	Transmission: 1,6,7
Chance: 55%	Duration: 2d6 w
Symptoms: B2,E8,F3,A4,D1	Critical: d10 d
	Weakness: GH

48% chance of relapse if the patient does not rest for d8 +8 weeks.

ALIEN DISEASE

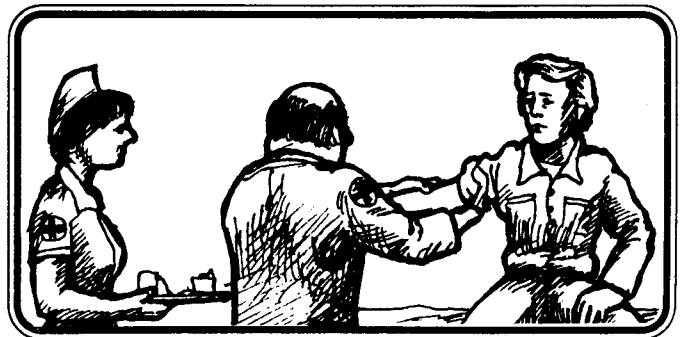
The relative chance of interspecies disease is rare to nearly impossible. Use the following chart for the chance of a disease that can cross such biological lines.

As mankind explored space they found all Alien races were a little different regardless of the basic processes and natural laws that create life. Alien to Human infection was possible, but more rare than ever expected.

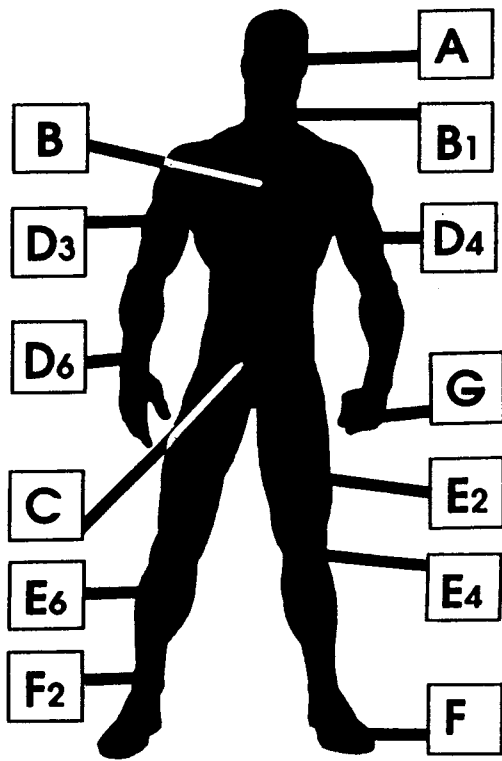
- 01-95 Species are too different
- 96-98 Disease can cross species lines, but effects and symptoms are different and at best, close results have a x(.25) severity modifier.
- 99 Completely different reaction, other symptoms and biological reactions. Randomize to create it.
- 00 Close reaction, like the alien disease, but with half the potency.

ALIEN MALADY

Many human diseases are given in FTL. Use these as models for diseases that effect other races. All races will have suseptibility to infection, minor recurring virus infection and their own specific childhood diseases. Most of these will have treatments as well as the assistance of High Tech medical facilities and the Autodoc system .



Generalized Body Areas



HIT LOCATIONS

The following is a set of generalized hit locations for the human body. Either table can index a specific area from the charts. These charts tend to give the user a randomization of hit area indexed by size of the area. The secondary chart below gives a more generic and equal breakdown for random hits.

HIT LOCATION FRONT OR BACK

01-10	Right Leg 25% Tail Hit	GO TO	E / T
11-15	Foot, L or R		F
16-30	Left Leg 25% Tail Hit		E / T
31-45	Left Arm		D
46-56	Right Arm		D
57-60	Hand, L or R		G
61-75	Abdomen		C
76-90	Chest		B
91-00	Head		A

HIT LOCATION SIDE

01-30	Leg, L or R 25% Tail Hit	GO TO	Eb / T
31-35	Foot, L or R		F
36-50	Abdomen 25% Tail Hit		Cb / T
51-70	Chest		Bb
71-85	Arm, L or R		Db
86-90	Hand, L or R		G
91-00	Head		Ab

RANDOMIZED BODY AREA CHART

This hit chart is for shrapnel hits, automatic weapons fire, and long range projectile fire where you do not have a choice of hit location. Use of this gives a general and nearly equal probability of any area being hit.

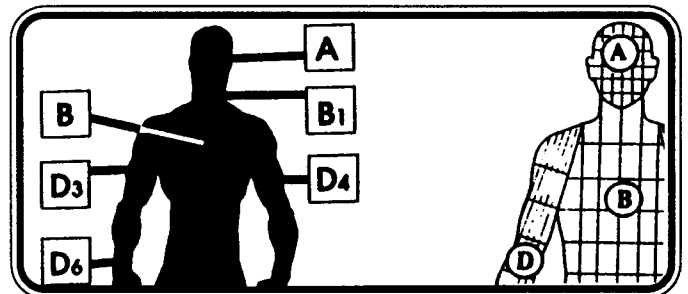
BODY AREA	FRONT		SIDE	
	TO	ROLL	TO	ROLL
01-04 Right Foot	F	2d6	F	2d6
05-08 Right Calf	F1	d6	Ec	d6
09-12 Right Knee	E4	d6	E4	d6
13-16 Right Hip	E1	d6	Ac	d6
17-20 Right Thigh or Tail	E2	d6	E2	d6
	T	d6	T	d6
21-24 Left Foot	F	2d6	F	2d6
25-28 Left Calf	F1	d6	Ec	d6
29-32 Left Knee	E4	d6	E4	d6
33-36 Left Hip	E1	d6	Ac	d6
37-40 Left Thigh or Tail	E2	d6	E2	d6
	T	2d6	T	d6
41-44 Right Hand	G	2d6	G	2d6
45-48 Right Lower Arm	D6	d6	D6	d6
49-52 Right Elbow	D4	d6	D4	d6
53-56 Right Upper Arm	D3	d6	D3	d6
57-60 Right Shoulder	D1	d6	Bc1	d6
61-64 Left Hand	G	2d6	G	2d6
65-68 Left Lower Arm	D6	d6	D6	d6
69-72 Left Elbow	D4	d6	D4	d6
73-76 Left Upper Arm	D3	d6	D3	d6
77-80 Left Shoulder	D1	d6	Bc1	d6
81-84 Genitals	C6	d6	Cb6	d6
85-88 Abdomen	C	2d6	Cb	2d6
89-92 Chest	B	2d6	Bb	2d6
93-96 Neck	B1	d6	Bb1	d6
97-00 Head	A	2d6	Ab	2d6

READING THIS CHART

On the above table only, read the result D6 as a location in the detailed charts.

EXAMPLE RESULT D6: Body table D, Section 6, Roll a d6 for the exact area hit.

EXAMPLE RESULT G: Body Table G, Roll 2d6 for the exact area hit.



EXAMPLE OF DETAILED AREA CODES

3,4 ** B (6) (M) **** (A) (SP 12) ** T=26
 a b c d e b f g h b n

DS = 80% + Heart, Upper R
 i j k l m

REMEMBER

Once you learn it, the body chart is easy and logical. While looking complex, it is actually a simple index of area hit and what lies under it. Always roll 2 six sided dice (2d6) for the area hit. Read each die separately.

KEY TO DETAILED BODY DAMAGE

a This is the number of the area found by randomization or design.

b The * is the indicator of one point of damage absorbed by the tissue in that area. This is also used for toughness and the indicator of the structure of major internal organs.

BONE

c B is the indicator of bone in that area. Always check the Bone Damage chart when damage is over the value of the bone. Any damage under the value always lodges the projectile in the bone.

d After a B is always the value of the bone in brackets ().

e This (M) is the indicator of a major organ in the area.

BLOODLOSS

f The (A) in brackets indicates a possible high bloodloss area. When this appears, the Artery Damage table is checked for possible severing.

g The (SP) is the code for a spinal hit. Check the optional Spine Damage table for additional damage and death shock.

h This is the damage needed to penetrate the spine.

DEATH SHOCK

i DS is the Death Shock indicator for critical damage in that particular area. A failure to roll over this percentage indicates the wound shock kills the victim. See Medical Skills for resuscitation and rescue. (See Also pg. 026-027)

j This is the Death Shock percentage the victim must roll over on a d100 to live. This is the primary form of wound shock if a major organ is damaged.

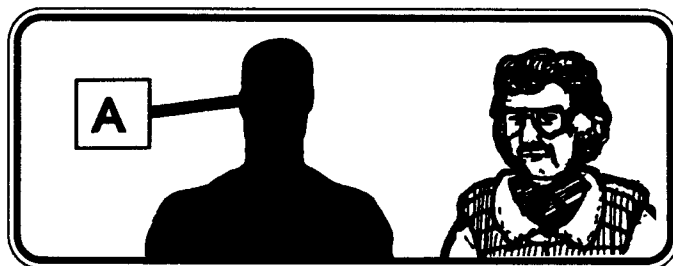
k The + is an indicator showing a possible higher death shock percentage.

l This is the major organ or (b) bone hit. In arms, legs, tail, hand, and foot areas only the bone name is listed.

INTERNAL ORGANS

m This is the location of the area hit in organs that have more than one listing. R = Right L = Left

n This is the total damage penetration needed to punch through that area. This is the maximum number of points a projectile will do to that area with a clean hit and no hydrostatic shock.



A HEAD AREA

- 1,1 Miss
- 1,2 Graze A
- 1,3 Graze B
- 1,4 Graze B
- 1,5 Graze A
- 1,6 Miss

GRAZES

Graze A = d6 WBD damage
 Graze B = 2d6 WBD damage

- 2,1 Graze B
- 2,2 *B(8) (M)****(A) B(8)* T=23
 DS = 94% Brain, Forehead L
- 2,3 *B(8) (M)****(A) B(8)* T=23
 DS = 98% Brain, Forehead Mid L
- 2,4 *B(8) (M)****(A) B(8)* T=23
 DS = 98% Brain, Forehead Mid R
- 2,5 *B(8) (M)****(A) B(8)* T=23
 DS = 94% Brain, Forehead R
- 2,6 Graze B
- 3,1 Graze B
- 3,2 *EYE(4) B(4) (M)****(A) B(8)* T=22
 DS = 98% Brain, Eye L
- 3,3 *B(3) B(6) (M)****(A) B(8)* T=23
 DS = 94% Brain, Bridge Nose L
- 3,4 *B(3) B(6) (M)****(A) B(8)* T=23
 DS = 94% Brain, Bridge Nose R
- 3,5 *EYE(4) B(4) (M)****(A) B(8)* T=22
 DS = 98% Brain, Eye R
- 3,6 Graze B
- 4,1 Graze B
- 4,2 *B(4)*B(6) (M)***(A) B(8)* T=24
 DS = 80% Brain, Zygomatic L
- 4,3 *B(3)*B(5) (M)***(A) B(8)* T=22
 DS = 85% Brain, Maxilla Palate L
- 4,4 *B(3)*B(5) (M)***(A) B(8)* T=22
 DS = 85% Brain, Maxilla Palate R
- 4,5 *B(4)*B(6) (M)***(A) B(8)* T=24
 DS = 80% Brain, Zygomatic R
- 4,6 Graze B

Tri Tac Games

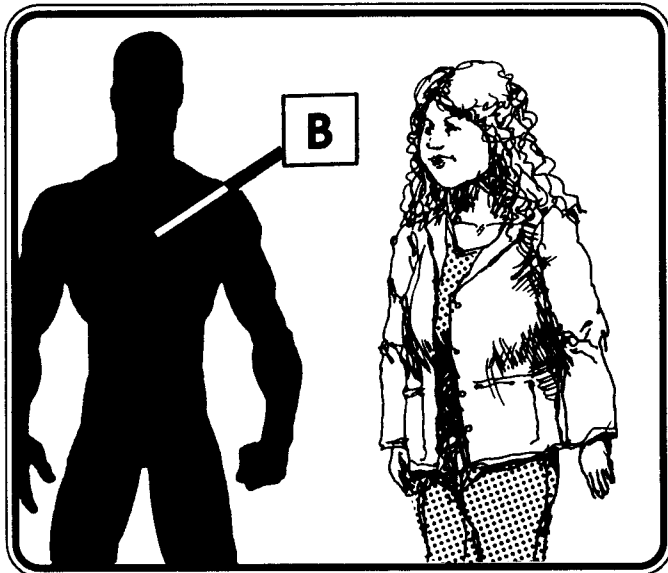
- 5,1 Graze B
 5,2 *B(3)*B(4) (M)*** (A) B(8)* T=21
 DS = 60% Brain, Teeth Upper L
 5,3 *B(3)*B(4) (M)*** (A) B(8)* T=21
 DS = 70% Brain, Teeth Upper Mid L
 5,4 *B(3)*B(4) (M)*** (A) B(8)* T=21
 DS = 70% Brain, Teeth Upper Mid R
 5,5 *B(3)*B(4) (M)*** (A) B(8)* T=21
 DS = 60% Brain, Teeth Upper R
 5,6 Graze B
 6,1 Graze B
 6,2 *B(3)*B(4)*B(6)* T=17
 DS = 03% Mandible, Jaw L
 6,3 *B(4)*** (A) (SP 12) B(8)* T=29
 DS = 15%+ Mandible, Mid L
 6,4 *B(4)*** (A) (SP 12) B(8)* T=29
 DS = 15%+ Mandible, Mid R
 6,5 *B(3)*B(4)*B(6)* T=17
 DS = 03% Mandible, Jaw R
 6,6 Graze B

- 2,1 Graze B
 2,2 **B(4) (M)**** (A) B(4)** T=16
 DS = 07% Lung, Upper L
 2,3 **B(4) (M)* (A)*** (SP 12) B(4)** T=28
 DS = 10%+ Bronchial Tube L
 2,4 *B(6) ** (A)*B(4)** T=16
 DS = 04% Esophagus
 2,5 **B(4) (M)**** (A) B(4)** T=16
 DS = 10% Bronchial Tube R
 2,6 **B(4) (M)**** (A) B(4)** T=16
 DS = 07% Lung, Upper R

- 3,1 Graze B
 3,2 **B(4) (M)**** B(4)** T=16
 DS = 10% Lung, Mid L
 3,3 **B(6) (M) **** (A) B(4)** T=18
 DS = 80% Heart, Upper L
 3,4 **B(6) (M)**** (A) (SP 12)** T=26
 DS = 80%+ Heart, Upper R
 3,5 **B(4) (M)**** (A) B(4)** T=16
 DS = 10% Lung, Mid R
 3,6 Graze B

- 4,1 **B(4) (M)**** (A) B(4)** T=16
 DS = 14% Lung, Lower L
 4,2 **B(4) (M)**** (A) B(4)** T=16
 DS = 20% Lung, Lower Mid L
 4,3 **B(6) (M)**** (A) B(4)** T=18
 DS = 90% Heart, Lower L
 4,4 **B(6) (M)**** (A) (SP 12)** T=26
 DS = 90%+ Heart, Lower Mid R
 4,5 **B(4) (M)**** (A) B(4)** T=16
 DS = 20% Lung, Lower Mid R
 4,6 **B(4) (M)**** (A) B(4)** T=16
 DS = 14% Lung, Lower R

- 5,1 Graze B
 5,2 **B(4) (M)**** (A) B(4)** T=16
 DS = 06% Liver, L
 5,3 **B(4) (M)**** (A) B(4)** T=16
 DS = 90% Heart, Lower L
 5,4 **B(4) (M)**** (A) (SP 12)** T=24
 DS = 10%+ Liver, Mid L
 5,5 **B(4) (M)**** (A) B(4)** T=16
 DS = 10% Stomach, Mid R
 5,6 **B(4) (M)**** (A) B(4)** T=16
 DS = 12% Spleen, R

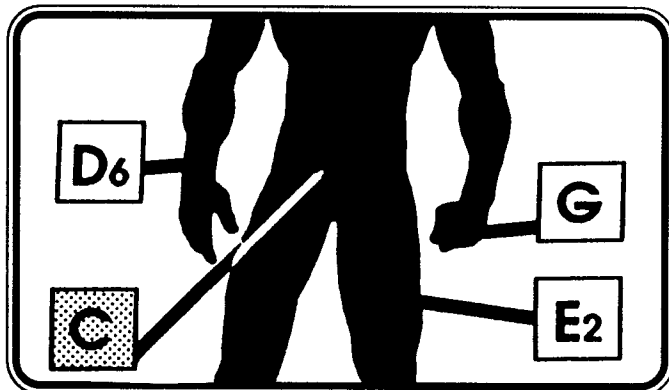


B CHEST AREA

- 1,1 Graze B
 1,2 **B(6) *** T=11
 DS = n/a Clavicle, Shoulder L
 1,3 *** (A) *(SP 12)* T=17
 DS = 04%+ Trachea, Air Passage
 1,4 *** (A) *(SP 12)* T=17
 DS = 04%+ Esophagus, Food Passage
 1,5 **B(6) *** T=11
 DS = n/a Clavicle, Shoulder R
 1,6 Graze B

Tri Tac Games

6,1	Graze B	
6,2	** (M)****(A) ***	T=10
	DS = 10% Liver, L	
6,3	** (M)****(A) ***	T=09
	DS = 08% Pancreas, L	
6,4	** (M)****(A) *(SP 12)**	T=21
	DS = 10%+ Duodenum, L	
6,5	** (M)****(A) ***	T=09
	DS = 15% Stomach, Mid	
6,6	** (M)****(A) ***	T=09
	DS = 10% Spleen	

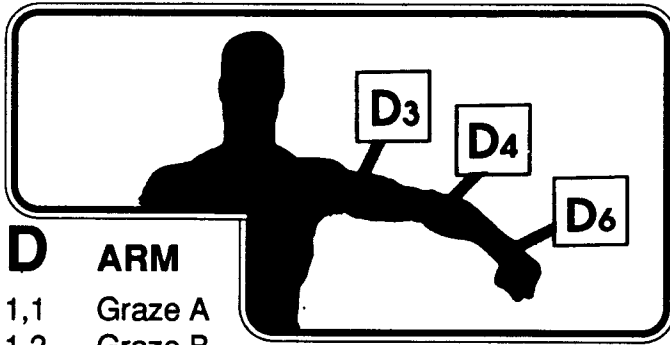


C ABDOMINAL AREA

1,1	Graze B	
1,2	** (M)****(A) ***	T=09
	DS = 08% Liver, L	
1,3	** (M)****(A) ***	T=09
	DS = 10% Kidney, L	
1,4	** (M)****(A) (SP 12)**	T=20
	DS = 10%+ Stomach, L	
1,5	** (M)****(A) ***	T=09
	DS = 08% Kidney, R	
1,6	** (M)****(A) ***	T=09
	DS = 05% Colon, R	
2,1	** (M)****(A) ***	T=09
	DS = 04% Colon, L	
2,2	** (M)****(A) ***	T=09
	DS = 10% Kidney, Lower L	
2,3	** (M)****(A) *B(4)**	T=13
	DS = 10% Intestine, L	
2,4	** (M)****(A) *(SP 12)**	T=21
	DS = 12%+ Intestine, R	
2,5	** (M)****(A) ***	T=09
	DS = 10% Intestine, R	
2,6	** (M)****(A) ***	T=09
	DS = 05% Colon, R	

3,1	** (M)****(A) *B(4)*	T=12
	DS = 05% Colon, L	
3,2	** (M)****(A) *B(4)*	T=12
	DS = 08% Intestine, L	
3,3	** (M)****(A) *B(6)*	T=14
	DS = 08% Intestine, Mid L	
3,4	** (M)****(A) *(SP 12)*	T=20
	DS = 08%+ Intestine, Mid R	
3,5	** (M)****(A) *B(4)*	T=12
	DS = 08% Intestine, R	
3,6	** (M)****(A) *B(4)*	T=12
	DS = 05% Colon, R	
4,1	** (M)****(A) *B(4)**	T=13
	DS = 08% Colon, L	
4,2	** (M)****(A) *B(10)**	T=19
	DS = 08% Intestine, L	
4,3	** (M)****(A) ***	T=09
	DS = 08% Intestine, Mid L	
4,4	** (M)****(A) *(SP 12)*	T=20
	DS = 08%+ Intestine, Mid R	
4,5	** (M)****(A) *B(10)**	T=19
	DS = 08% Intestine, R	
4,6	** (M)****(A) *B(4)**	T=13
	DS = 05% Colon, R	
5,1	** (M)****(A) *B(4)***	T=14
	DS = 05% Colon, L	
5,2	** (M)****(A) *B(10)***	T=20
	DS = 08% Intestine, L	
5,3	** (M)****(A) *B(2)***	T=12
	DS = 08% Intestine, Mid L	
5,4	** (M)****(A) *B(5)***	T=15
	DS = 08% Intestine, Mid R	
5,5	** (M)****(A) *B(10)***	T=20
	DS = 05% Appendix, R	
5,6	** (M)****(A) *B(4)***	T=14
	DS = 05% Colon, R	
6,1	Graze B	
6,2	** (M)****(A) *B(5)***	T=15
	DS = 10% Bladder, L	
6,3	** (M)****(A) *B(3)***	T=13
	DS = 06% Genitals, L	
6,4	** (M)****(A) *B(3)***	T=13
	DS = 06% Genitals, R	
6,5	** (M)****(A) *B(5)***	T=15
	DS = 10% Bladder, R	
6,6	Graze B	

Tri Tac Games



D

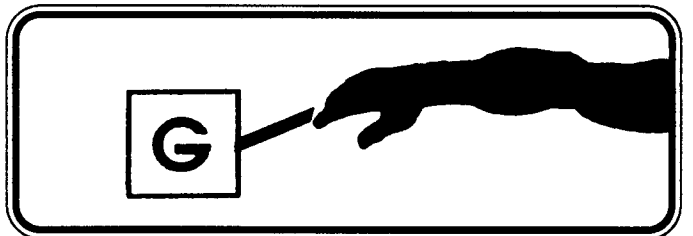
ARM

1,1	Graze A		
1,2	Graze B		
1,3	*** B(6)**	Clavicle	T=11
1,4	*** B(8)**	Shoulder	T=13
1,5	** B(6) *(A)B(8)*	Clavicle	T=18
1,6	***B(8) ***	Shoulder	T=14
2,1	Graze A		
2,2	Graze B		
2,3	*** (A) B(7)***	Humerus	T=13
2,4	*** (A) * ***	Arm, Upper	T=07
2,5	Graze B		
2,6	*** (A) B(8)**	Shoulder	T=13
3,1	Graze B		
3,2	*** (A) * ***	Arm, Upper	T=07
3,3	***B(8) ***	Humerus	T=14
3,4	*** (A) B(7)***	Humerus	T=13
3,5	*** (A) * ***	Arm, Upper	T=07
3,6	Graze B		
4,1	Graze B		
4,2	*** * * *	Arm, Mid	T=08
4,3	*** (A) B(8)***	Humerus	T=14
4,4	** (A) B(10)*	Elbow	T=13
4,5	*** (A) B(8)***	Humerus	T=14
4,6	Graze B		
5,1	Graze A		
5,2	Graze B		
5,3	*** (A) B(6)***	Radius	T=12
5,4	***B(6) *B(7)**	Radius-Ulna	T=19
5,5	*** (A) B(7)**	Ulna	T=12
5,6	*** (A) * **	Arm, Lower	T=06
6,1	Graze A		
6,2	Graze B		
6,3	*** (A) B(5)**	Radius	T=10
6,4	*** (A) B(6)**	Ulna	T=11
6,5	Graze B		
6,6	Graze A		

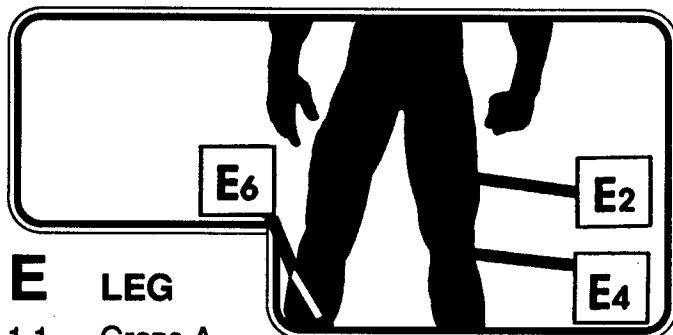
G

HAND

1,1	Graze B		
1,2	*** B(5)**	Radius	T=10
1,3	*** (A) B(5)**	Radius	T=10
1,4	*** (A) B(6)**	Ulna	T=11
1,5	*** B(6) **	Ulna	T=11
1,6	Graze A		
2,1	Graze A		
2,2	Graze B		
2,3	** (A) B(4)**	Schaphoid	T=08
2,4	** (A) B(4)**	Lunate	T=08
2,5	Graze B		
2,6	Graze A		
3,1	Graze B		
3,2	** B(4)**	Trapezium	T=08
3,3	** (A) B(4)**	Trapezoid	T=08
3,4	** (A) B(4)**	Capitate	T=08
3,5	Graze B		
3,6	Graze A		
4,1	** B(4)**	Thumb	T=08
4,2	Graze A		
4,3	** B(3)**	Phalanges	T=07
4,4	** (A) B(3)**	#2 Phalanges	T=07
4,5	** (A) B(3)**	#3 Phalanges	T=07
4,6	** (A) B(3)**	#4 Phalanges	T=07
5,1	** B(3)**	Thumb, Mid	T=07
5,2	Graze A		
5,3	** B(3)**	Phalanges	T=07
5,4	** B(3)**	#2 Phalanges	T=07
5,5	** B(3)**	#3 Phalanges	T=07
5,6	** B(3)**	#4 Phalanges	T=07
6,1	** B(2)**	Thumb Tip	T=06
6,2	Graze A		
6,3	** B(2)**	Phalanges	T=06
6,4	** B(2)**	#2 Phalanges	T=06
6,5	** B(2)**	#3 Phalanges	T=06
6,6	** B(2)**	#4 Phalanges	T=06



Tri Tac Games

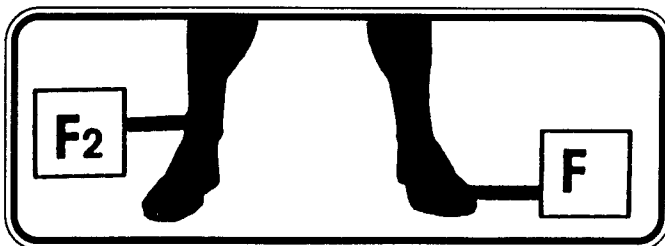


E LEG

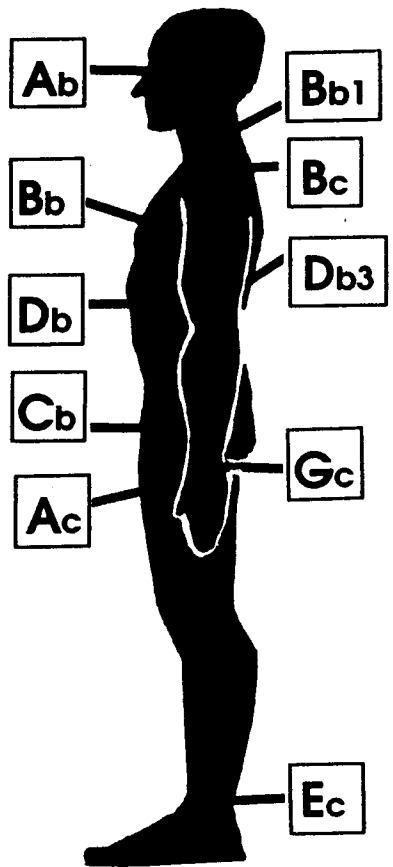
1,1	Graze A		
1,2	*** B(10)***	Pelvis	T=17
1,3	*** B(9)***	Hip, Joint	T=15
1,4	*** B(10)***	Pelvis	T=16
1,5	Graze B		
1,6	Graze A		
2,1	Graze B		
2,2	****(A) B(12)****	Femur	T=20
2,3	**** B(12)****	Femur	T=20
2,4	**** * ****	Leg, Upper	T=10
2,5	Graze B		
2,6	Graze A		
3,1	Graze B		
3,2	****(A) B(12)****	Femur	T=20
3,3	**** B(12)****	Femur	T=20
3,4	**** * ****	Leg, Upper	T=10
3,5	Graze B		
3,6	Graze A		
4,1	Graze B		
4,2	**** B(12)****	Femur	T=20
4,3	** (A) B(9)***	Knee	T=14
4,4	**B(9) B(8)**	Knee	T=21
4,5	**** B(12)****	Femur	T=20
4,6	Graze A		
5,1	Graze B		
5,2	*** B(10)***	Fibula	T=16
5,3	*** B(10)***	Fibula	T=16
5,4	*** (A) B(8)***	Tibia	T=14
5,5	*** B(8)***	Tibia	T=14
5,6	Graze A		
6,1	Graze B		
6,2	*** (A) B(10)***	Fibula	T=16
6,3	*** B(10)***	Fibula	T=16
6,4	*** B(8)***	Tibia	T=14
6,5	*** (A) B(8)***	Tibia	T=14
6,6	Graze A		

F FOOT

1,1	Graze B		
1,2	*** B(10)***	Fibula	T=16
1,3	*** (A) B(10)***	Fibula	T=16
1,4	*** (A) B(8)***	Tibia	T=14
1,5	*** B(8)***	Tibia	T=14
1,6	Graze A		
2,1	Graze B		
2,2	** (A) B(10)**	Ankle Joint	T=14
2,3	** B(11)**	Ankle	T=15
2,4	** (A) B(10)**	Ankle Joint	T=14
2,5	** B(11)**	Ankle	T=15
2,6	Graze A		
3,1	Graze B		
3,2	** B(8)**	Talus	T=12
3,3	** (A) B(8)**	Talus	T=12
3,4	** B(8)**	Talus	T=12
3,5	Graze B		
3,6	Graze A		
4,1	Graze B		
4,2	** B(7)**	Cuboid	T=11
4,3	** (A) B(7)**	Navicular	T=11
4,4	** (A) B(7)*	Cuneiforms	T=11
4,5	** (A) B(7)**	Cuneiforms	T=11
4,6	Graze A		
5,1	Graze B		
5,2	** B(3)**	Metacarpal	T=07
5,3	** B(3)**	#2 Metacarpal	T=07
5,4	** B(3)**	#3 Metacarpal	T=07
5,5	** B(3)**	#4 Metacarpal	T=07
5,6	** B(3)**	#5 Metacarpal	T=07
6,1	Graze B		
6,2	** B(2)**	Phalanges	T=06
6,3	** B(2)**	#2 Phalanges	T=06
6,4	** B(2)**	#3 Phalanges	T=06
6,5	** B(2)**	#4 Phalanges	T=06
6,6	** B(2)**	#5 Phalanges	T=06



Generalized Side Areas



SIDE STRIKES

The following side tables work on the same principle as hits on the DETAIL BODY TABLES.

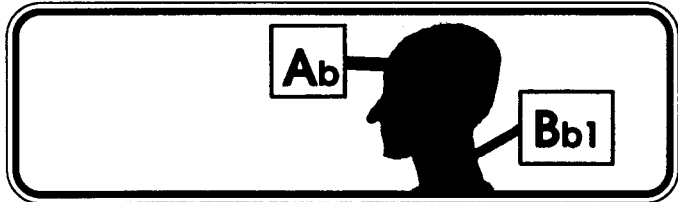
Ab HEAD

- 1,1 Miss (forehead nick)
- 1,2 Graze A
- 1,3 Graze B
- 1,4 Graze B
- 1,5 Graze A
- 1,6 Miss (scalp nick)

GRAZES
 Graze A = d6 WBD damage
 Graze B = 2d6 WBD damage

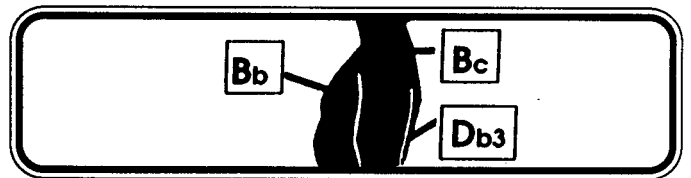
- 2,1 Graze B
- 2,2 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 92% Brain, Pre Frontal
- 2,3 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 98% Brain, Frontal
- 2,4 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 98% Brain, Middle
- 2,5 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 94% Brain, Rear
- 2,6 Graze A

- 3,1 (M)** B(4) (M)** T=08
DS= 05% Eyes, Corneas / Lenses
- 3,2 *B(9) (M)** B(3) (M)** B(9)* T=27
DS= 10% Eyes, Mid
- 3,3 *B(8) (M)**(A) B(4) (M)**(A) B(8)* T=26
DS= 50% Eyes/Retinas
- 3,4 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 85% Brain, Motor Area
- 3,5 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 95% Brain, Motor Area
- 3,6 Graze B
- 4,1 Graze B Nose / Snout
- 4,2 *B(10) *B(1)* B(10)* T=25
DS= 02% Frontal Sinus
- 4,3 *B(4) ***** B(4)* T=15
DS= 02% Mid Sinus
- 4,4 **B(4) **B(2) * B(2)** B(4)** T=21
DS= 25% Jaw, Hinge
- 4,5 *B(8) (M)**(A) (M)**(A) B(8)* T=22
DS= 95% Brain, Motor Area
- 4,6 Graze A
- 5,1 Graze B Upper Lips / Snout
- 5,2 *B(3) B(4) B(3)* T=10
DS= n/a Teeth Upper
- 5,3 *B(3) ** *B(3)* T=10
DS= n/a Teeth, Upper Mid
- 5,4 **B(4) (A)**** B(4)** T=12
DS= 05% Jaw, Tongue
- 5,5 **(A)** (SP 10) **(A)** T=18
DS= 55% Spine
- 5,6 Graze B
- 6,1 Graze B Lower Lip / Snout
- 6,2 *B(3) *** B(3)* T=11
DS= n/a Teeth, Lower Jaw
- 6,3 *B(3) **** B(3)* T=12
DS= n/a Teeth, Lower Mid
- 6,4 **B(3) (A)**** B(3)** T=14
DS= 05% Jaw
- 6,5 **(A)** (SP 11) **(A)** T=18
DS= 45% Spine
- 6,6 Graze B



B_b CHEST

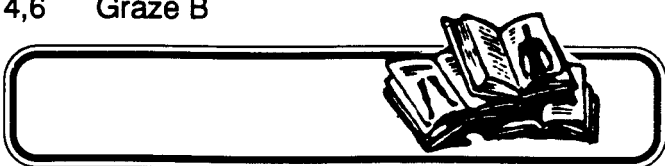
- 1,1 Miss
 1,2 ***(A)*** (A)*** T=09
 DS= 02% Larynx/Esophagus
 1,3 *** (SP 11) *** T=19
 DS= 40% Spine, Neck, Front
 1,4 **(A)* (SP 11) *** T=17
 DS= 45% Spine, Neck, Rear
 1,5 *** *** *** T=09
 DS= n/a Neck Muscles
 1,6 Graze B
- 2,1 Graze B
 2,2 *** B(6) **(A,A)** B(6) *** T=22
 DS= n/a Clavicle
 2,3 ***(A)* (SP 11) *(A)*** T=29
 DS= 40% Spine, Front
 2,4 **** * (SP 11) * **** T=21
 DS= 45% Spine, Neck, Rear
 2,5 **** **** **** T=12
 DS= n/a Neck Muscles
 2,6 Graze A
- 3,1 Graze A
 3,2 **B(5) (M)**(A) (A)(M)** B(5)** T=18
 DS= 25% Lungs, Aorta
 3,3 **** (M)(A)****(A) ** (A)(M)** **** T=16
 DS= 95% Lungs, Heart
 3,4 *** (A)* (SP 12) *(A)*** T=20
 DS= 40% Spine, Front
 3,5 **** B(4)* (SP 12) * B(4) **** T=30
 DS= 45% Spine, Rear
 3,6 **B(5) B(10)** **** ** B(10) B(5)** T=42
 DS= 45% Shoulder Blades
- 4,1 Graze A
 4,2 *** (M)** (M)(A)**(A) (M)** B(5)** T=16
 DS= 40% Lungs, Heart Nick
 4,3 **B(5)(M)** (M)(A)****(A) **(A)(M)** **** T=26
 DS= 95% Lungs, Heart
 4,4 **** B(5)* (SP 12) * B(5) **** T=32
 DS= 45% Spine, Front
 4,5 **B(5) B(7)** (SP 12) **B(7) B(5)** T=44
 DS= 50% Spine, Rear
 4,6 Graze B



- 5,1 Graze B
 5,2 *** (M) (A)***** (A) B(5)*** T=16
 DS= 50% Liver, Front
 5,3 ***B(5)* (M)**(A) (M)*** *B(5)*** T=18
 DS= 65% Stomach, Liver
 5,4 **** B(5) **(M) (SP 12) **(M) **** T=31
 DS= 50% Lungs, Spine, Front
 5,5 **B(5) B(7)** (SP 12) **B(7) B(5)** T=32
 DS= 55% Spine, Rear
 5,6 Graze A
- 6,1 Graze A
 6,2 **B(5) (M)***** (A) * (M)***** (A) *** T=21
 DS= 40% Stomach, Liver
 6,3 ***B(5)* (M)**(M)****(A)(M)*** (A)*B(5)** T=26
 DS= 65% Lungs, Stomach, Liver
 6,4 *** B(5) (M)**(A) (SP 12) *** (M) **** T=29
 DS= 45% Lungs, Spine Front
 6,5 **B(5) B(7)** (SP 12) **B(7) B(5)** T=32
 DS= 50% Spine, Rear
 6,6 Graze B

C_b ABDOMEN

- 1,1 Graze B
 1,2 *** (M)***** (A) *** T=14
 DS= 20% Large Intestine
 1,3 **B(4) (M)*** (A) (M)***** (A) B(4)** T=22
 DS= 45% Spleen, Intestine
 1,4 *** **** (SP 12) **** *** T=26
 DS= 45% Spine, Front
 1,5 ** B(4) **(M)**(A) (SP 12) (M)**(A) **** T=29
 DS= 45% Kidneys, Spine, Rear
 1,6 Graze A
- 2,1 Graze A
 2,2 ** (M)(A)***** (A) ** T=12
 DS= 25% Intestines
 2,3 *** (M)(A)***** (A) *** T=15
 DS= 25% Intestines
 2,4 ** (M)**(A) (M)(A)***** (A) (M)**(A) ** T=16
 DS= 15% Colon, Small Intestine
 2,5 **** ** (SP 12) ** **** T=24
 DS= 23% Spine, Middle
 2,6 Graze B



3,1	Graze B	
3,2	** (M)(A)***** (A) **	T=11
3,3	*** (M)(A)***** (A) ***	T=14
	DS= 25% Intestines	
3,4	** (M)**(A) (M)(A)***** (A) (M)**(A) **	
	DS= 25% Colon, Small Intestines	T=15
3,5	**** ** (SP 12) ** ****	T=24
	DS= 25% Spine	
3,6	Graze A	
4,1	Graze A	
4,2	** (M)(A)***** (A) **	T=09
	DS= 15% Colon	
4,3	***B(5)(M)** (M)(A)***** (A)(M)**B(5)***	
	DS= 15% Colon, Small Intestines	T=26
4,4	***B(5)(M)** (M)(A)***** (A)(M)** B(5)***	
	DS= 15% Colon, Small Intestines	T=25
4,5	**** ** (SP 12) ** ****	T=24
	DS= 15% Spine	
4,6	Graze B	
5,1	Graze B	
5,2	** (M)(A)***** (A) **	T=08
	DS= 10% Colon	
5,3	**B(5) (M)** (M)(A)***** (A)(M)** B(5)***	
	DS= 10% Colon, Small Intestines	T=23
5,4	**B(5)(M)** (M)(A)***** (A)(M)** B(5)***	
	DS= 10% Colon, Small Intestines	T=23
5,5	*B(5)***** (SP 12) ****B(5)*	T=32
	DS= 10% Rectum	
5,6	Graze A	
6,1	Graze A	
6,2	** (M) **** (A) **	T=08
	DS= 02% Genitals	
6,3	**** (M) **** (M)***** (A) ****	T=16
	DS= 03% Genitals, Bladder	
6,4	**** B(6) (M) *** (A) *** ****	T=20
	DS= 05% Duodenum	
6,5	*** B(5) (M)***** (A) B(4) B(5) ***	
	DS= 03% Rectum, Tail Bone	T=25
6,6	Graze B	

D_b ARM

Use the general arm table D from 2,1 to 5,6. For 1,1 to 1,6 and 6,1 to 6,6 see below.

B_c SHOULDER

1,1	Graze B	
1,2	**B(8)*B(6) -	
	Use Chest, Side 1,2 From Here Inwards	
1,3	**B(9)*B(6) -	
	Use Chest, Side 1,3 From Here Inwards	
1,4	**B(4)*B(7)*B(6) -	
	Use Chest, Side 1,4 From Here Inwards	
1,5	Graze B	
	Use Chest, Side 1,5 From Here Inwards	
1,6	Graze A	
	With a 5% chance of a painful chip of bone knocked from the spine.	

G_c WRIST

6,1	Graze A	
6,2	Graze B	
6,3	*B(5)*B(4)*	Radius/Ulna T=12
6,4	** (A)*B(6)B(5)**	Radius/Ulna T=18
6,5	*(A)*B(6)*(A)*B(5)*	Radius/Ulna T=16
6,6	Graze B,	
	(Make an artery check twice at a -1 modifier)	

E_b LEG

Use the general leg table E from 2,1 to 5,6

A_c PELVIS AREA / LEG SOCKET

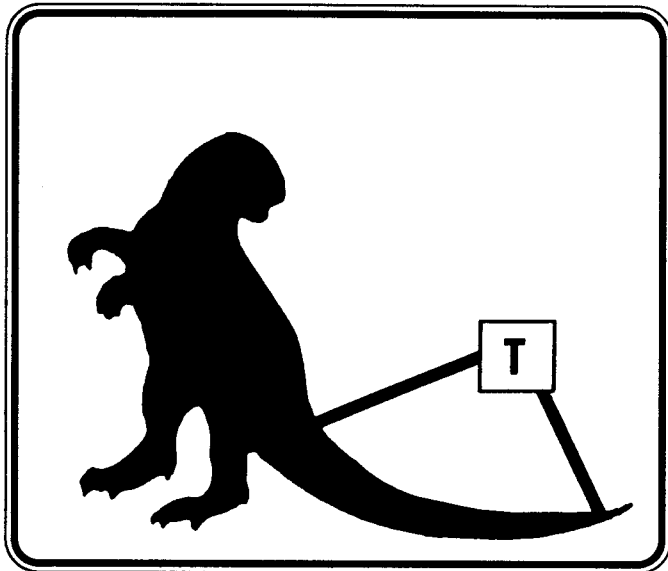
1,1	Graze A	
1,2	***B(7)*	See Abdomen Table 6,2
1,3	***B(9)*	See Abdomen Table 6,3
1,4	***B(7)*	See Abdomen Table 6,3
1,5	Graze B	Buttocks
1,6	Graze B	Buttocks

E_c ANKLE AREA

6,1	Graze A	
6,2	**B(15)(A)*	See Leg Table 6,2
6,3	**B(15))*	See Leg Table 6,3
6,4	**B(12)*	See Leg Table 6,4
6,5	Graze B	Tendon
6,6	Graze B	

GF HANDS / FEET / TAIL

Use general HAND or FOOT tables.



OPTIONAL TAIL HITS

For any reasons you might need a tail hit chart, use the following. Because of the wide variety of tail types, use this generalized table. Remember, Hits on tails that penetrate will continue into legs or lower back in most cases. For just tissue hits in the tail area, just generalize about an inch of solid muscle tissue stops a point of penetration

T TAIL STRUCTURE HITS

- 01 Graze A
- 02 Tissue Hit Only
- 03 Bone Hit of General Type
- 04 Tissue Hit Only, Check for Artery hit.
- 05 Tissue Hit Only
- 06 Graze B

OPTIONAL BONE DAMAGE

The following can be used as an optional damage chart for projectile/bone hits. This can also be used with impact damage or for bone breakage.

BONE BREAKAGE / DAMAGE

- 01-05 NO BREAK
Clean Hit, reduce damage penetration by 4 points from this point inward.
- 06-09 BONE FRACTURES
Bone Fractures, add d4 points to the WBD or final body damage. This extra damage does not add to the penetration power of the projectile.
- 10 BONE SPLINTERS
Bone Splinters, add d6+1 points to the final damage. This does not add to the penetration of the projectile.

ARTERY DAMAGE

This is the optional chance of arterial damage and blood loss caused by a projectile or blade strike.

- 01-07 CLEAN HIT
No damage to arteries or veins, no bloodloss.
- 08-09 ARTERY NICK
Artery Nick. Artery or Major Vein damage adds one point of damage per minute until stopped by medical aid.
- 10 ARTERY SEVER
Artery Severed. A sever adds d6 points of damage per minute until stopped by medical aid.

AREA MODIFIERS FOR ARTERIAL DAMAGE

Arterial damage for some areas is far more critical than others. Check the table below for a result modifier on the table above.

Brain	+2	Heart	+4
Stomach	+d4	Intestine	+d4
Spleen	+2	Lungs	+1
Kidneys	+1	Arm Sever	+3
Liver	+2	Colon	+1
Foot Sever	+4	Leg Sever	+5

LIMB SEVERING

Crush Sever, Any Limb	- 1
Blast Sever, Any Limb	+1
Slice Sever, Any Limb	+3

SPINAL DAMAGE

Spinal wounds are the second most crippling form of damage a character can take. These are optional tables for realism.

- 01-04 GRAZE
Graze on spine. Adds d6 points of damage to the WBD result. Does not increase the penetration of projectile.
- 05-06 HEAVY GRAZE
Adds 2d6 on the final WBD result with an additional 04% chance of a Death Shock.
- 07-08 DIRECT HIT
Direct Hit. Roll a second Death Shock percentage over 25% on a d100 for character survival. Add 2d10 to the final WBD damage total. Roll a 40% chance of the victim being paralyzed below the point of impact.
- 09 INTERVERTEBRAL DISC HIT
Hit on disc between vertebrae. Roll for a second Death Shock percentage over 40% for character survival. Add 2d10 to the final WBD damage. Roll a 70% chance of the victim will be paralyzed below the point of impact.
- 10 SPINAL SHATTER
Spine Shattered. Roll a second chance of Death Shock over 60% for the character survival. Add 3d10 to the final damage. Roll a 90% chance of paralysis below the point of impact.

SPINAL SEVER

These are the wounds that directly damage the nerve cord in the back. These can be by bone breakage, projectile penetration, or crushing of the spinal cord, disks, or vertebrae. With traumatic damage, the areas below the damage are generally paralyzed or functionally retarded. The table below can be used for generalizations.

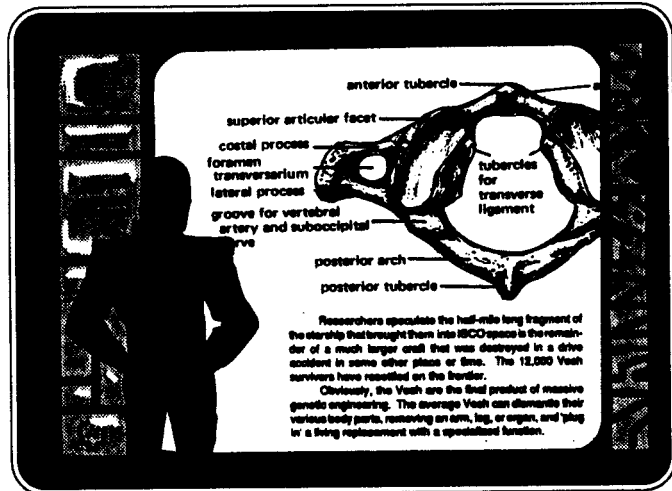
SPINAL DAMAGE TO SPECIFIC AREA

01-10	Arm
11-25	Arm, Chest
26-50	Arm, Chest, Leg
51-75	Entire Side, Below Wound
76-95	Both Sides, Below Wound
96-98	Both Sides, Below Wound, with a 20% chance of a Death Shock.
99-00	Both Sides, Below Wound, with a 40% chance of a Death Shock.

GRAZES

Grazes are minor structural damage, (WBD) Whole Body Damage, equal to:

GRAZE TYPE		EXAMPLE
A	d6 Extra (WBD) Damage	Minor cut
B	2d6 Extra (WBD) Damage	Serious cut



ALIEN BODY STRUCTURES

Alien body structure is based on the general human table with skin, tissue, and bone modifications. Under many circumstances human body structure will also vary widely. Below are general guidelines.

FAT

Add one point of tissue for every inch of body fat in excess of 1 inch in general thickness.

LARGE BONE STRUCTURE

Add one point of bone value per (.50) inch of additional bone.

SKIN STRUCTURE

See the Armor Section Pg. 138 for general equivalency.

OPTIONAL WOUND SHOCK

As a character takes specific area Hit Point damage or WBD, he or she suffers the possibility of wound shock that may become a Death Shock.

REMEMBER

- 01 Break hit points into 25%,50%,75%,and 100%.
- 02 Index the total amount of damage taken.
- 03 If the damage, WBD, is just over that fraction of the characters HPT he or she has that percentage to go into shock. Roll a d100 over this number to avoid shock. If the roll fails and the character goes into shock, index the damage percentage to the areas below and check for the chance of Incapacitation (IN-CAP), Unconsciousness (UNCON) and the chance of Death Shock.
- 04 Incapacitation reduces all physical statistics use by half and makes the character dependent on others for movement or rescue.
- 05 Generally the Vital Area table is most commonly used. Unless the GM warrants, the specific head or extremity tables are not used.

% TOTAL WBD LOST	CHANCE INCAP	CHANCE UNCON	DEATH SHOCK
------------------	--------------	--------------	-------------

BRAIN AREA

Graze	-	-	-
01-25%	20%	25%	05%
26-50%	50%	50%	25%
51-75%	75%	70%	50%
76-99%	98%	98%	70%

VITAL AREA (Chest, Abdomen, General)

Graze	-	-	-
01-25%	10%	20%	05%
26-50%	25%	40%	20%
51-75%	75%	60%	30%
76-99%	95%	70%	50%

EXTREMITY (Arm, Leg)

Graze	-	-	-
01-25%	05%	-	-
26-50%	10%	20%	05%
51-75%	20%	30%	10%
76-99%	40%	50%	15%

FAR EXTREMITY (Hand, Foot)

Graze	-	-	-
01-25%	-	-	-
26-50%	05%	-	-
51-75%	10%	05%	-
76-99%	15%	10%	05%

BLAST STUN

Blast affects exposed body areas as Whole Body Damage (WBD) with the chance of stun and shock indexed from the body's least protected or exposed areas.

Remember that 60 points of damage to an area that can

only take 30 points only can do a maximum of 30 points WBD. Body areas hit with double their rating for traumatic damage are removed by blast or critical damage at the GM's decision. Be very reasonable in your decisions.

GM'S NOTES

As a general rule, when dealing with blast and characters, only blow them to kibble when the total amount of WBD taken is 4x their total HPT score. This general guideline may also be used for limbs.

NEAR BLAST STUN

Most close detonations will have the effect of causing the character to lose (d4x .50) actions and suffer a 40% chance of a d10 hour hearing loss of d100% of hearing.

INCAPACITATION

Related to wound shock, stun or incapacitation is another side effect of damage. Either use the table for Cushing on page 108 or check the following for stun intensity and length.

OPTIONAL STUN REDUCTIONS

Incapacitation reduces action and skill use. The following are modifiers for types of resulting stuns. These stuns are temporary in nature and recoverable quickly after the Length of Stun time has expired.

	LENGTH OF STUN	REDUCE SKILL USE	REDUCE PHYSICAL STATS
FAST:	d10 s	n/a	n/a
LIGHT:	2d10 s	n/a	25%
MEDIUM:	d10 m	25%	50%
HEAVY:	2d10 m	50%	75%
HARD:	3d10 m	75%	95%

BRAIN AREA

PERCENTAGE WBD DAMAGE

Graze
01-25%
26-50%
51-75%
76-99%

TYPE OF STUN

Light
Medium
Heavy
Hard
Hard

VITAL AREA

(Chest, Abdomen, General)

PERCENTAGE WBD DAMAGE

Graze
01-25%
26-50%
51-75%
76-99%

TYPE OF STUN

Fast
Light
Medium
Heavy
Hard

EXTREMITY (Arm, Leg)

PERCENTAGE WBD DAMAGE

Graze
01-25%
26-50%
51-75%
76-99%

TYPE OF STUN

Fast
Fast
Light
Medium
Heavy

FAR EXTREMITY (Hands, Feet)

PERCENTAGE WBD DAMAGE

Graze
01-25%
26-50%
51-75%
76-99%

TYPE OF STUN

n/a
n/a
Fast
Light
Medium

REMEMBER

- 01 Fast and Light stuns are more an action penalty than the character actually falling unconscious.
- 02 Use of realistic Stun and Shock is always a GM option.

On the Frontier

Ted Peters and Del-Mop the Blox are caught in the Mining Office when raiders attack. A ripping explosion demolishes the wall behind them. Peters takes a good wallop of blast shock. Del-Mop takes blast shock and a sharp shard of aluminum shrapnel in what passes for his chest.

The GM uses the Vital Area table for general blast effects over the body.

Peters was best protected and only takes 23 points of damage. He has 77 HPT to start. Ted has taken just under 33% of his HPT. The GM rates it down to 25% for easy use. If the player rolls under a 25 on a d100, Peters will go into shock. Luckily an 89 is rolled and the spacer is medium stunned for a minute or three.

Del-Mop has a real problem. He's got a sliver of steel embedded in his chest and is lucky it didn't kill him. The damage from the fragment was 16 points as it lodged in his Chest 4,2 or the equivalency of one of 4 lower left lungs. He doesn't have an artery sever and the wound, which has a flat 20% chance to kill, didn't.

Along with the wound damage, the Bloxian took 35 points of blast bringing his total damage up to 51 points. As he only had 55 HPT points the GM rates his shock percentage to 95% Del-Mop goes into shock when a 33 is rolled on a d100. He has a 95% chance of incapacitation, a 70% chance of being unconscious, and a 50% chance of one of his hearts stopping.

While failing rolls for consciousness and function, he does, by some miracle, survive the Death Shock roll.

Peters decides he's done being a peaceful engineer, as he draws his laser, and sights on the Zanke intruder.

"This is for the Blox!" he yells as he squeezes the trigger. The gun clicks, damaged.

The Zanke raises his weapon and smiles.

ARMOR

Armor is any material which forms a physical barrier for the protection of the character, NPC, or inanimate object.

In FTL:2448, all armor reduces the penetration of damage from projectile and physical assault.

Index the defender's type of armor by the attacker's type of damage to find the number of damage points stopped by the armor.

DAMAGE TYPES / CODES

EN: Energy, Laser	PU: Puncture / Stab
BI: Bite	BL: Blade Weapon
CL: Claw	FA: Firearms
EX: Explosion / Blast	
LV: Low Velocity Impact (Punch, Kick, Thrown Objects etc.)	

GUIDELINES

- 01 Armor may be layered for general use. See the next column for a general example of a character's armor.
- 02 Most armor thickness is rated in (.25) or a quarter of an inch. Use realism when creating armor or layering it.
- 03 Metals and Ballistic cloth are rated at (.12) or an eighth of an inch.
- 04 The numbers below are the damage stopping power of the material in question.

ARMOR RELATED MODIFIERS

- AGL The character's loss of Agility because of the bulk of the armor worn.
- ACC The character's loss of Accuracy during weapons fire during movement.

ARMOR	EN	BI	CL	PU	BL	FA	LV	EX	-AGL	-ACC
Bare Skin	0	0	0	0	0	0	0	0	0	0
Fabric	01	01	02	01	0	0	01	02	0	0
Heavy Fabric	02	03	03	01	02	01	02	04	0	0
Padded Fabric	05	04	04	02	03	02	04	06	-01	0
LEATHERS										
Leather	03	03	05	03	03	01	03	05	0	0
Heavy Leather	04	05	07	04	05	02	05	07	-01	0
Hardened Leather	05	07	09	06	06	03	06	09	-02	0
PLASTIC										
Thin Plastic	05	04	07	05	05	01	04	07	-01	0
Plastic Chainmail	05	06	05	04	08	01	03	03	0	0
Plastic Plate	07	08	09	07	10	04	08	10	-01	-01
Carbon Filament	09	10	12	09	12	04	10	15	-01	0
Anti-Laser	25	04	07	05	05	01	04	06	-01	0
Anti-Blaster	06	07	08	06	09	03	07	05	-01	0
METAL										
Light Metal	12	14	16	10	14	02	15	10	-01	-01
Metal Chain	14	16	18	12	16	02	17	07	-02	-01
Metal Plate	16	18	20	16	18	06	21	15	-03	-02
Armored Alloy	18	20	22	18	20	10	25	20	-04	-02
BALLISTIC / ARAMID FIBER										
Cloth	07	08	06	04	12	16	10	07	0	0
Layered	12	15	17	16	15	21	15	10	-01	-01
Layered w/Metal	14	16	18	18	18	19	22	15	-02	-01
PROTECTIVE SUITS										
Minimal	06	05	08	06	06	01	03	05	-01	0
Light	08	07	10	08	08	02	06	07	-01	-01
Medium	10	09	12	10	10	02	09	10	-02	-02
Heavy	13	12	15	13	13	12	10	15	-03	-03
Vac Suit	18	17	20	18	18	29	18	20	-04	-04
Heavy Vac Suit	23	22	25	23	23	30	22	25	-04	-05
NATURAL ARMOR										
Light Hide	01	01	02	01	01	01	0	01	0	0
Heavy Hide	02	02	02	04	02	02	01	02	0	0
Chitin	04	02	03	05	03	01	04	06	-01	-01
Stony Hide	05	03	05	07	04	01	06	08	0	-01
Bone	06	04	07	09	05	01	07	10	-01	-01
Fur Layer	03	02	03	01	02	01	02	0	0	0
Dense Fur	06	04	05	02	03	02	04	04	-01	-01
Soft Wood	04	06	08	05	07	02	04	04	-01	-01
Hard Wood	06	08	10	07	09	03	08	08	-01	-01

ARMOR MAPPING

This is an example of armor mapping for characters in combat situations. Armor will reduce damage up to the value of the armor indexed by the type of attack.

BASIC ARMOR EXAMPLE

Ballistic Cloth Hat & Sunglasses

Ballistic Cloth Shirt

Ballistic ICL Jacket

Ballistic Cloth Shorts

Fabric Socks

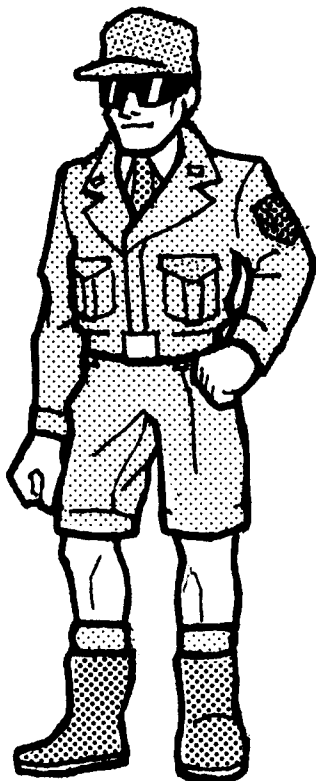
Spacer Boots

ACCURACY MODIFIER

+0

AGILITY MODIFIER

+0



LOGIC IN ARMOR

The first illustration shows a normal spread of armor value on general street clothes. The second shows general combat armor for a rough situation where bullets might fly.

On the Frontier

Near dark, Ted Peters works his way from the ruins of the mining complex. From the fires and lights in the Colony, he knew the raiders were still there. He was more cautious now after an encounter with one of the Alien monsters earlier. Purely by luck his Laser had fired on the third shot and struck the creature between the eyes.

Casually, Zankée Sargent Graxuk and trooper Gur Sark both take aim with a Mazer and a slug thrower. Both put a shot into the close form of Peters.

The first mazer shot misses as Ted realizes what the sizzling sound was. The second projectile shot strikes him directly in the heart.

Tedd's jacket, sweater, and shirt each stop one point of the beam's penetration. The luckless human staggers and falls over backwards with 29 points damage in the heart area.

Little do the raiders know that Peters took a double-layered ballistic cloth vest from the Zankée he killed a few hours earlier. The vest stops 39 points of damage.

Though knocked down and out of breath, he is alive and not very happy with the would-be assassins.

The Zankée move in to scavenge the body.

ARMOR MAPS

In the rear of the FTL:2448 book you will find photocopyable sheets for equipment and mapping your character's armor. The sheets may also be used for quick reference for area hit when using the detailed body tables on Pg.126.

HEAVY ARMOR EXAMPLE

Helmet

Ballistic Cloth Shirt

Heavy Ballistic Jacket

Light Ballistic Vest

Chronograph Band

Ballistic Cloth Pants

Fabric Socks

Combat Boots



HEAVY ARMOR

In heavy armor the character becomes obvious in the fact he or she is in battle armor or expecting a brawl. This may serve to attract attention from local authorities who wonder why this person is set for a war.

REMEMBER

- 01 Your mission is to survive.
- 02 Armor can provide limited protection from many forms of damage.
- 03 Armor is heavy and will slow you down.
- 04 Most armor piercing rounds will punch a hole through your armor.
- 05 A head shot is generally fatal.

FIRST ACTION / WEAPONS

With weapons fire the most often asked question is who fires first in a combat situation. The GM can usually answer this by the position of the character and his preparedness for the action. In problem situations or cases of 'fast draw' use the following.

First action is the ability to complete an action before another character can accomplish his. Always roll a d10 and add this to your AGL statistic to find who completes this action first. The player with the highest score completes his action first. A tie means both actions happen at the same split second. The GM must carefully consider what the players are attempting to accomplish as this is used. For example, a character that must pull a gun from a holster before firing always loses to a person who is holding a gun. You get the picture. (See Also Time/Motion on Pg. 03)



WEAPONS FIRE AND COMBAT

While looking complex, the Tri Tac Weapons System is actually easy and fast. What makes it look hard is the wealth of options you will have to use with the system. Use one or all options to create realism. Two methods are offered.

EASY USE

Your character has an Accuracy score, the ability to hit a target with any general type of firearm. This score ranges from 0 to 20. Roll a d20 under your Accuracy to hit a target. Modify this with the following difficulty ratings.

REMEMBER

- 01 Index your Accuracy to the Number Breakdown shot for the number you must roll under for success.

SHOT DIFFICULTY	ACC MODIFIER
SHOT YOU CAN'T MISS	ACC x 1.25
REAL EASY SHOT	ACC x 1.00
DIFFICULT SHOT	ACC x 0.75
VERY DIFFICULT SHOT	ACC x 0.50
RIDICULOUS SHOT	ACC x 0.25
IMPOSSIBLE SHOT	ACC x 0.12

ACC	NUMBER NEEDED TO ROLL UNDER				
	x0.12	x0.25	x0.50	x0.75	x1.25
01	1	1	1	1	1
02	1	1	1	1	2
03	1	1	1	2	3
04	1	1	2	3	5
05	1	1	2	3	6
06	1	1	3	4	7
07	1	1	3	5	8
08	1	2	4	6	10
09	1	2	4	6	11
10	1	2	5	7	12
11	1	2	5	8	13
12	1	3	6	9	15
13	1	3	6	9	16
14	1	3	7	10	17
15	1	3	7	11	18
16	2	4	8	12	20
17	2	4	8	12	20
18	2	4	9	13	20
19	2	4	9	14	20
20	2	5	10	15	20

REALISTIC RESOLUTION

This second system works like the first with modifiers for the situation of the attacker and the defender.

REMEMBER

- 01 Total the modifiers you choose to use. This will give the attacker a + or - number modifier to apply to his or her accuracy.
- 02 Add this final result to the character's Accuracy. This is the number that must be rolled under on a d20 to hit the target.
- 03 If the player's d20 roll is below half of what was needed to hit the target, he or she has the choice to call the specific point of the shot.
- 04 A general hit in an area is checked against the detailed body tables for specific location.

On the Frontier

Too late the Zankée realizes they have made a fatal mistake as Ted Peters points his SAPS 9600 between the Zankée commanders eyes and tells him to drop his rifle or look for his head on the next planet.

Being zealous, but not too bright in the Wisdom department, trooper makes a fast move to grab his combat knife in the hopes of catching Peters off guard.

This is the stupid stunt Ted expected the Zankée to perform as he pulls the trigger on the SAPS 9600.

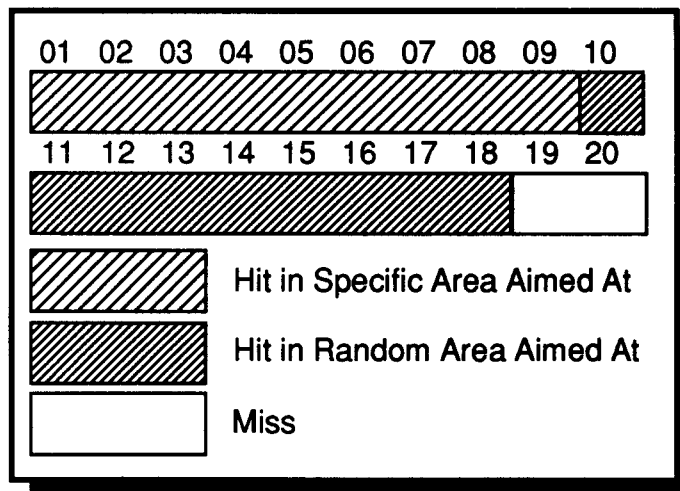
MODIFIERS	Size / Speed	+2
	Movement	+2
	Weapon Modifier	+2
	Total	+6

There is a +6 on Ted's ability to hit the attacking war party. He fires twice.

With an Accuracy of 12, he now needs an 18 or below on a d20 roll to hit. A 19 results from the first roll and the shot is a close miss. The second shot hits when a 5 is rolled, nailing the Trooper in the forehead. With a resounding scream, the Zankée is spun and falls on his rump.

The Sargent lowers his Maser and says, "You Die!"
"Wanna Bet?" says Ted.

TED'S SHOT BREAKDOWN



MULTIPLE HITS

Before we begin to cover optional modifiers, you need to learn the automatic weapons fire procedure. This table is useful for many weapons, from automatic weapons to grenade fragments and shotgun pellet strikes.

REMEMBER

- 01 Roll under your accuracy to hit the target.
- 02 Total all modifiers for range, size, recoil, and target spread.
- 03 Roll a d100 and add this modifier to the result.
- 04 Index the number of shots fired in the burst and the result from step 3 above. The indexed results gives you the number of shots that hit the target.
- 05 All shots hit the target if a 01 is rolled or the target is at PB range, prone, under the gun of the attacker.

RANGE MODIFIER

Point Blank	+25
Very Short	+15
Short	+10
Medium	+05
Long	+0
Extreme	-10

SIZE MODIFIER

Very Small	-10
Small	+0
Medium	+05
Large	+10
Very Large	+15
Gigantic	+20

RECOIL MODIFIER

No Recoil	+0
Light Recoil	-05
Heavy Recoil	-10

TARGET SPREAD

Close Spread	-05
Medium Spread	-10
Wide Spread	-15

ATTACKER MOTION

Still	+0
Slow	-05
Medium	-10
Fast	-15

TARGET MOTION

Still	+15
Slow	+10
Medium	+05
Fast	+0

GM'S NOTES

This table should cover most common weapons with automatic fire capabilities. For bursts over 40 rounds index the table again to find the additional amount you need.

On the Frontier

Seeing the second raider take a bead on Ted Peters, Del-Mop the Blox pulls out the antique assault rifle from his pack and fires a burst of 20 rounds.

As Ted Peters sizes up the situation, he quickly raises his SAPS 9600 and fires at the Zankee. Realizing his mistake as the round bounces off the enemies plate armor, he takes careful aim at the head.

"Down!" Del-Mop yells, as he begins to dump his clip at the Sargent.

MODIFIERS

Medium Range	+05
Large Size	+15
Light Recoil	+0
Total	+20

A d100 is rolled and the +20 is added to the result of 70. Indexing the 90 to the 20 rounds burst column gives the result of 12. The Zankee is hit by 12 rounds from the gun.

The Zankee slumps to the ground with 2 head wounds.. "Gotcha, Gotcha, Gotcha!?" says Del-Mop.

"I'm headin for the hills!"

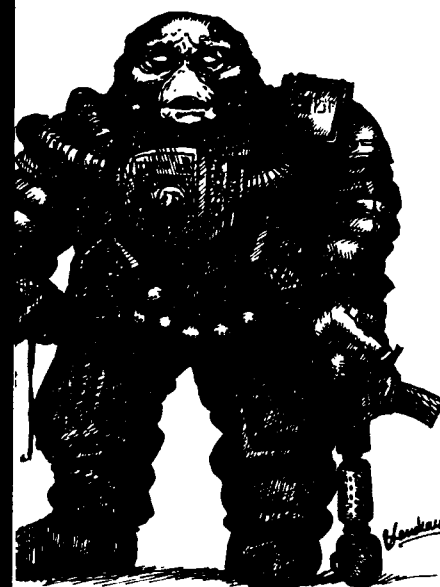
Ted Peters

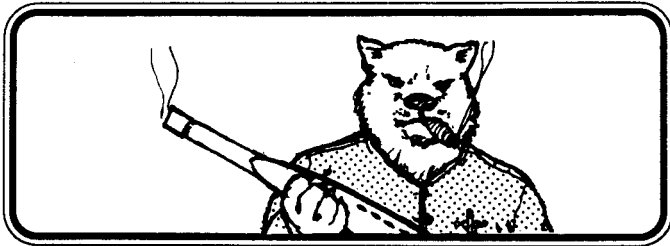
"The Paperwork!"

Del-Mop

NUMBER OF ROUNDS FIRED / AUTOMATIC WEAPON

d100	05-06	07-08	09-10	11-12	13-15	16-20	21-25	26-30	31-35	36-40
01-05	1	1	1	1	1	1	2	3	4	5
06-10	1	1	2	2	2	2	3	4	5	6
11-15	1	1	2	2	3	3	4	5	6	6
16-20	1	1	3	3	4	4	5	5	6	7
21-25	1	2	3	3	4	5	5	6	7	7
26-30	2	2	4	4	5	5	6	7	7	8
31-35	2	2	4	4	5	6	6	7	8	8
36-40	2	2	4	5	6	6	7	8	8	9
41-45	2	3	5	6	6	7	7	8	9	9
46-50	2	3	5	6	7	7	8	9	9	10
51-55	3	3	5	6	7	8	8	9	11	11
56-60	3	4	6	7	8	8	9	9	11	12
61-65	3	4	6	7	8	9	9	10	11	13
66-70	3	4	6	8	9	9	10	11	13	15
71-75	3	5	7	8	9	10	11	13	15	17
76-80	4	5	7	9	10	11	12	16	18	19
81-85	4	5	7	9	10	12	13	19	21	23
86-90	4	6	8	10	11	12	14	22	24	26
91-95	4	6	8	10	12	13	15	24	26	28
96-00+	5	7	9	11	13	16	20	24	29	35





OPTIONAL ACCURACY MODIFIERS

The next section deals with more Accuracy and Combat Modifiers than you've probably ever seen. These are for use where needed by player or GM. This entire area is optional for use. To start there are five main modifiers.

- 01 SIZE / SPEED
- 02 RANGE OF THE TARGET
- 03 ATTACKER / DEFENDER MOVEMENT
- 04 EQUIPMENT BONUS
- 05 UNUSUAL SITUATION MODIFIERS

REMEMBER

- 01 All attacker / defender modifiers are combined to form a single Accuracy Modifier.
- 02 These modifiers can be used on any of the following types of combat.

- A Bows
- B Thrown / Grenade Weapons
- C Firearms / Lasers / Launchers
- D Thrown Edged Weapons

SIZE / SPEED MODIFIER

Index the size of the target to the general speed of the target for a modifier.

SIZE	TYPE	EXAMPLE
VSM	Very Small	Size of a Rat
SMA	Small	Medium Sized Dog
MED	Medium	Generally Man Sized
LAR	Large	The Size of a Horse
XLA	Extra Large	An Average Elephant
GIA	Gigantic	Semi Truck Sized

SPEED	TYPE	EXAMPLE
VSL	Very Slow	01 Ft. Per Action
SLO	Slow	02 Ft. Per Action
MED	Medium	05 Ft. Per Action
FST	Fast	10 Ft. Per Action
VFS	Very Fast	20 Ft. Per Action
LFS	Lightning Fast	40 Ft. Per Action

SPEED	SIZE OF TARGET					
	VSM	SMA	MED	LAR	XLA	GIA
Still	+0	+01	+02	+04	+06	+08
VSL	-01	+0	+01	+02	+03	+04
SLO	-02	-01	+0	+01	+02	+03
MED	-03	-02	-01	+0	+01	+02
FST	-04	-03	-02	-01	+0	+01
VFS	-05	-04	-03	-02	-01	+0
LFS	-06	-05	-04	-03	-02	-01

RANGE

Each weapon has a modifier to hit a target by range. These inherent modifiers differ with style of weapon and manufacture. See the highlighted area below.

RIFLE Semi-Auto									"AR-7"
ROF	1or2	AMO	CDE	PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	+0	+2	+3	-1	-2	-4
CAP	8	WTE	2.0	EFFECTIVE				EX+	
CIR	1965	MIS	1% <i>d</i>	3 <i>d</i>				1 <i>d</i>	
HSM	—	KDM	—	SPC (gij)				EF=05	

This light weight survival weapon can be dismantled and stored in its own stock. It floats. (*.22 Long Rifle*)

EXAMPLE	DISTANCE	
PB Point Blank	0001-0005	Ft. to Target
VS Very Short	0006-0025	Ft. to Target
SH Short	0026-0100	Ft. to Target
ME Medium	0101-0500	Ft. to Target
LO Long	0501-1000	Ft. to Target
EX Extreme	1001+	Ft. to Target

MOVEMENT

Index the Attacker's (AT) and Defender's movement rates for the movement modifier.

RATE	A Still	F Running
	B Slow Walk	G Dodging
	C Walk	H Wild Dodge
	D Fast Walk	I Evasion
	E Slow Run / Jog	J Roll / Tumble

DEFENDER										
AT	A	B	C	D	E	F	G	H	I	J
A	+03	+02	+01	+0	-01	-02	-03	-04	-05	-06
B	+02	+01	+0	-01	-02	-03	-04	-05	-06	-07
C	+01	+0	-01	-02	-03	-04	-05	-06	-07	-08
D	+0	-01	-02	-03	-04	-05	-06	-07	-08	-09
E	-01	-02	-03	-04	-05	-06	-07	-08	-09	-10
F	-02	-03	-04	-05	-06	-07	-08	-09	-10	-11
G	-03	-04	-05	-06	-07	-08	-09	-10	-11	-12
H	-08	-09	-10	-11	-12	-13	-14	-15	-16	-17
I	-10	-11	-12	-13	-14	-15	-16	-17	-18	-19
J	-12	-13	-14	-15	-16	-17	-18	-19	-20	-21

WILD DODGE / EVASION NOTES

Any character attempting to dodge wildly has the chance of falling. Roll a d20 under your Agility to avoid this possibility. If the roll fails then roll a d100 on the table below.

- 01-50 **NO PROBLEM**
With this type of stumble the character immediately regains his or her balance with no action recovery needed.
- 51-95 **STUMBLE BADLY**
Takes 2 actions (4 seconds) to recover from this near fall.
- 96-00 **FALL**
Take a dive and spend 6 actions recovering to gain your feet again.

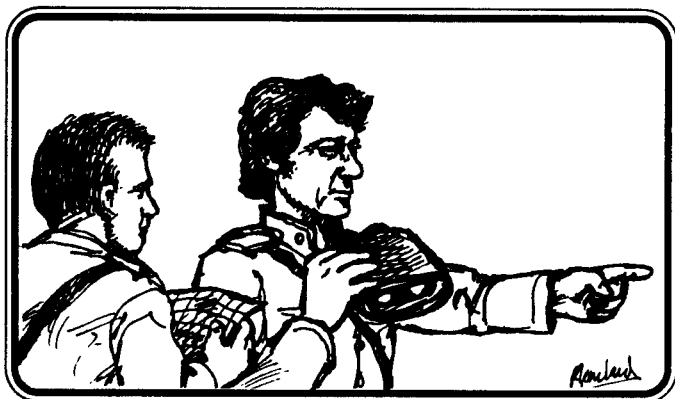
SPECIAL EQUIPMENT

Target Sighting Devices are any special optional equipment that improves the attacker's chance of hitting a target over short or longer ranges.

TYPE OF WEAPON

H = Handgun R = Rifle/Assault Rifle
 S = Shotgun M = Machine Gun
 L = Laser Pistol E = Laser Rifle
 P = Energy, Hand B = Energy, Rifle

DEVICE	MODIFIER	USE ON WEAPON							
Optic Scope	+02	H	R	—	M	L	E	—	—
Electronic Scope	+04	—	R	—	M	—	—	—	—
Laser Dot Sight	+06	H	R	S	M	L	E	P	B
Radar Lock On	+07	—	R	—	—	—	E	—	—
Quick Point Sight	+01	H	R	S	M	L	E	P	B
Still Stand, Bipod	+02	—	R	S	M	—	E	—	—



OPTIONAL SPECIAL SITUATION MODIFIERS

These are the optional modifiers used for special conditions of weather and target motion.

TERRAIN

Grass, High (crops)	-02
Hills	-02
Hills, Low	-02
Rocky	-03
Mountainous	-03
Jungle	-03
Jungle, Dense	-04
Sandy	-01
Sand Dunes	-02
Swamp	-01
Swamp, Dense	-02
Swamp, Tropical	-03
Trees, Wide Spaced	-01
Trees, Light Forest	-01
Trees, Heavy Forest	-02
Trees, Coniferous	-03
Tundra	n/a

WEATHER

Fog, Light	-02
Fog, Medium	-04

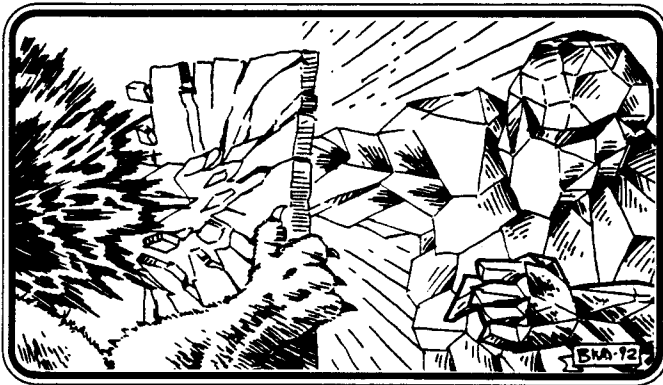
Fog, Heavy	-08
Light, Attacker Facing Bright	-03
Light, Target Silhouetted	+02
Rain, Light	-02
Rain, Heavy	-04
Rain, Downpour	-06
Smog, Light	-02
Smog, Heavy	-03
Snow, Dry	-01
Snow, Wet	-02
Snow, Heavy	-03
Snow, Blizzard	-06
Sunny, Clear	n/a
Sunny, Hazy	-01
Water, Clear (Target Submerged)	-02
Water, Murky (Target Submerged)	-04
Wind	-01
Wind, High	-03
Wind, Hurricane	-07
Sand, Windblown (No Eye Protection)	-06
Sand, Windblown (Eye Protection)	-03
Smoke	-02
Smoke, Dense	-06
Smoke, Dense, & High Heat	-10

CITIES

Close Buildings	-01
Cobblestones	-01
Falling Target	-04
Jumping Target	-04
Target Recovering From Fall	+02
Ladder / Rope (Climbing)	-02
Ladder / Rope (Descending)	-04
Rope, Swinging	-06
Night, Overcast	-12
Roof, Minor Incline	-02
Roof, Major Incline	-04
Rubbish, Low	-03
Rubbish, High	-05
Steps	-02
Steps Narrow	-03
Swimming	-03
Moonlight, Clear / Bright	-03
Moonlight, Shadowy	-06
Dawn / Dusk	-03
Water, Waist Deep	-01
Crowd, Light	-03
Crowd, Dense	-06
Crowd, Panic	-12

VEHICLES

Fast Moving (Target Inside)	-04
Slow Moving (Target Inside)	-02
Fast Moving (Attacker Inside)	-04
Slow Moving (Attacker Inside)	-02
Dirt Road	-01
Rough Road	-03
Cratered Road	-06
Heavy Truck	-01
Motorcycle	-03



DEFLECTION OPTION

DEF is the accuracy modifier to punch through a substance to hit a target behind. This is only the Accuracy modifier and not the penetration energy needed to damage or destroy the target.

The Blast listing is the general number of points of explosive energy needed to destroy a quarter inch of the listed common building material. (See also Pg. 109)

MATERIAL	DEF	BLAST
Ordinary Glass	-01	05
Double Strength Glass	-02	10
Reinforced Glass	-03	20
Bulletproof Glass	-04	15
Plexiglass	-01	10
Bulletproof Plastic	-06	25
Vehicle Windshield	-02	18
Vehicle Side Windows	-01	13
Soft Wood	-01	10
Hard Wood	-02	15
Loose Earth	-02	25
Packed Earth	-04	45
Sand	-02	30
Plasterboard	-02	04
Concrete	-06	20
Hollow Block	-04	15
Brick	-04	20
Stone	-08	35
Light Metal	-02	15
Metal Plate	-04	45
Armored Alloy	-06	95

WEAPONS SKILL

Per Every 3 Levels of Skill With Specific Weapon +01
 Very Careful Aiming (4 Actions) +02

SPECIFIC SHOT MODIFIERS

Use these modifiers for a target at Extreme Range.

TARGET POSITION	AREA AIMED AT				
	HEAD	HAND	CHEST	LEG	ARM
Standing	-04	-06	-02	-03	-05
Stooping	-05	-07	-03	-04	-06
Crouching	-06	-08	-04	-05	-07
Prone	-07	-09	-05	-06	-08

WEAPONS FIRE FROM MOVING ANIMALS

This set of modifiers covers characters on horseback or using weapons from moving wagons or other unstable platforms. First index the general riding ability of the attacker.

- E EXCELLENT
Horseback Riding Skill Level 11+
- G GOOD
Horseback Riding Skill Level 06-10
- P POOR
Horseback Riding Skill Level 01-05
- W Firing From Flatbed Wagon
- C Firing from Coach

QUADRUPED

PACE	E	G	P	W	C
Walking	—	-01	-02	-02	-02
Canter	-02	-03	-04	-03	-02
Gallop	-03	-05	-07	-04	-03
Run	-04	-09	-09	-05	-04
Trot	-05	-09	-12	-06	-05

"I'd rather take the Hover Bus"

Ben Warren





**Paebak 6551 Gephow
Heavy Assault Rifle**

WEAPONS CODES

Each weapon type is broken into a number of statistics and codes for general use.

ROUND

A single unit of ammunition, the "bullets" a weapon holds.

ROF

Rate of Fire is the number of times a weapon can be fired in an action. When divided into more than one rate the weapon is capable of firing more than a single round and can often be set to the number of rounds fired per pull of the trigger. Example: 1 to 3 See CYC for automatic weapons Rate of Fire.

Special Note

'OR' or 'TO' RATE of FIRE

When Rate of Fire (ROF) has the word "or", the weapon has a burst control that limits the number of rounds fired to the second number. The word "to" indicates no burst control; the weapon will continue to fire until the trigger is released. The second number is considered to be a short burst, the user's general choice of the number of rounds fired. However, any number of rounds up to the Cyclic Rate, (CYC) can be fired in one action. Assault rifles, sub-machine guns, and machine guns are called "selective fire" when the safety switch positions of safe, semi-, and full-automatic are possible. Weapons that are fully automatic only have positions of safe and full-auto.

ROL

Rate of Load is a weapons reload time. This load time is in actions. (2 seconds = 1 action)(See Also Pg. 146)

Special Notes

REVOLVERS

All double-action revolvers have a rate of load (ROL) of Bx capacity (CAP) when using loose ammunition. This can be improved by use of a speed loader. See special (a) Pg. 146.

CAP

Capacity is the number of rounds a weapon can hold.

CIR

The year of a weapon's introduction.

Special Notes

THE +1 CAPACITY

The +1 in the capacity is an indicator the weapon may have a round in the chamber as well as a full magazine.

HSM

The Hydrostatic Shock Modifier is a bonus for adjusting final damage.

AMO

Ammunition is the type of projectile or round that can be fired. See the Projectile or AMO table for specific and special types. (See Also Pg. 147)

Special Notes

INTERCHANGEABLE AMMUNITION

Interchangeable ammunition is listed by an ammunition code between two stars. Whenever weapons are "like" listed, the ammunition is the same. Any differences in accuracy and range is due to differences between the individual weapons. Example (*.45 ACP*)

DICE OF DAMAGE

The numbers listed under each weapon's range modifiers are the number of "dice" of damage the weapon does at that general range. Use round damage multiplied by the number of dice listed or a simple 10 sided die to make things easy.

Range		PB	VS	SH	ME	LO	EX
Accuracy Modifier →		+4	+3	+2	0	-2	-6

	DICE OF DAMAGE	
Number of Dice	EFFECTIVE	EX+
of Damage by Range →	5d	2d

CYC

Cyclic rate is the number of rounds an automatic weapon fires in an action if the trigger is held continuously.

WTE

This is the unloaded weight of the weapon in pounds.

MIS

This is the percent chance of improper function per 10 firings and the table to index the result of misfire.

KDM

The Knockdown modifier is a bonus for "stopping" or knocking down a generally man-sized target.

SPC

Specials are the general information and small idiosyncrasies of listed weapons.

EFFECTIVE

The "Effective Range" is the average damage modifier at which a weapon may be held and fired with a reasonable chance of hitting a man sized target, unless modified by equipment or situation modifiers.

EX

The "EXTREME" range is the extreme range accuracy modifier for hitting a man-sized target.

EF=

The Morrow Project™ E factor. Special thanks to Bill Worzell of Timeline, LTD for granting use of this.

LOAD TIMES

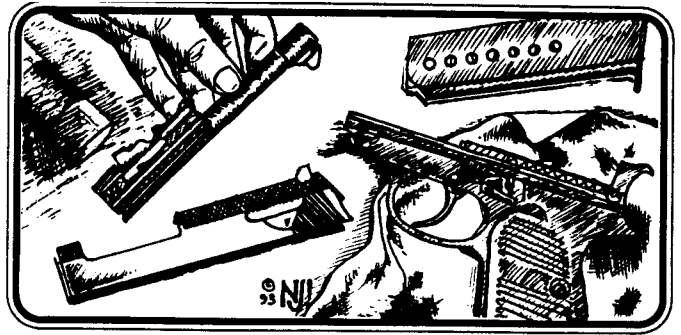
CODE	TYPE	DESCRIPTION	ACTIONS
A	Box/Clip	Complete Reload	01
B	Manual	1 Step Reload	01
C	Manual	2 Step Reload	02
D	Manual	3 Step Reload	03
E	Manual	4 Step Reload	04
F	Manual	5 Step Reload	05

MULTIPLE BARREL RELOADING

Multiple barrels or chambers multiply the time of loading. The above rates are for single barrel loading only. Multiply load time by the number of barrels or chambers.

WEAPON SPECIALS

Many weapons have special characteristics or information inherent to a number of types of listed weapons. Listed here are specials. Many weapon accessories can be ordered from manufacturers, fabricated or found in supply on Starships.



SPEEDLOADER

a Speedloader for revolvers. $ROL = B \times CAP$. Speed loaders change ROL to $B \times 2$.

SILENCER

b Accessory silencer decreases noise. Shot can be heard within 20 feet outdoors but not outside a closed room.

CONCEALMENT

- c Weapon concealable in normal holster.
- h Weapon concealable in special holster or under jacket or bulky clothing only.
- i Weapon is only concealable in brief case, tool box, musical instrument case, small suitcase, etc.
- o Concealable in a large suitcase or guitar case.
- p Concealable in pocket.

RECOIL

- d Modest recoil, minimum strength 5.
- e Sharp recoil, minimum strength 10.
- f Heavy recoil, minimum strength 15.

Note: Shooter takes one point WBD damage for each point under the minimum strength necessary. This can result in loss of balance or broken bones in extreme cases. Roll under the player character's Agility on a d20 when firing weapons with a heavy recoil to avoid losing balance and taking damage.

SCOPE

J Scope. (If used on handguns add special type h).

HANDGRIPS

- k Target handgrips give +1 to hit at short and medium.
- l Combat handgrips give a +1 to hit at point blank and very short ranges.
- m Bipod. A two-legged rest for a firearm that steadies the weapon for more accurate shooting.
- n Folding or collapsing stock. (If used add special type o above).

SHOTGUN CHOKE

- q Removable Choke. This is a replaceable device which changes the shape of the barrel constriction and shot pattern. (See Also Shotguns Pg. 155)
- r Adjustable Choke. Like (q) but easily adjustable with a twist of the choke.
- s Rapid Burst. Roll to hit (under ACC) once for all shots fired.
- t Bullet Tumbles. Use HSM modifier.

ROUND TYPE & DICE FOR DAMAGE

To find the damage your weapon does look under the Effective or Extreme listing and index the number of dice. You can do this two ways.

METHOD 1

Use d10's for all damage / round types.

EXAMPLE

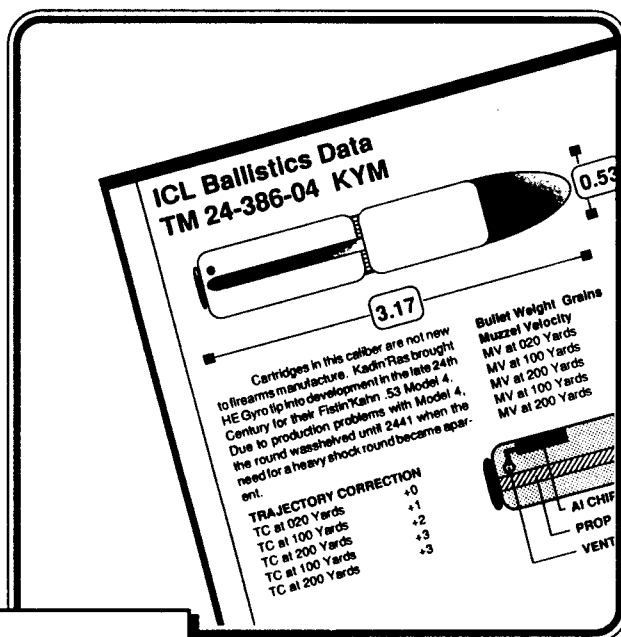
An H&K G-11 does 4d or 4 dice of damage per bullet that hits. Using the easy method 4 d10's are rolled for a result of damage between 4 and 40 points.

OPTIONAL METHOD 2

Index the specific type of ammunition you are using.

EXAMPLE

An H&K G-11 does 4d or 4 dice of damage per bullet that hits. Using ammunition F indexes type of modified dice to use. In this case it's a d8 +2. Four of these are rolled 4 (d8+2) to give you a damage range between (12 and 40).



DAMAGE OF PROJECTILES

TYPE	OLD CODE	TYPE OF DICE USED	HYDRO. SHOCK	KNOCK DOWN
A Rocks (gravel)	B	d4	—	—
LEAD PROJECTILES				
B Round Ball	C	d4	+1	—
C Conical Bullet	D	d6 +1	—	—
D Flat Point	E	d4 +1	+2	+1
E Hollow Point	—	d6	+3	+1
JACKETED PROJECTILES				
F Full Jacket, Round / Pointed Nose	F	d8 +2	—	—
G Tracer (add d6 burn)	F1	d8 +1	—	—
H Armor Piercing	F2	d8 +3	—	—
I Armor Piercing (Pointed)	—	d8 +6	—	+2
J Flat Point	P	d8 +2	+1	—
K Air Space Point	O	d6 +2	+2	—
L ASP Tracer (+d6 burn)	O1	d6 +1	+2	—
M Soft Point	H	d6 +2	+2	—
N Protected Soft Point	—	d6 +3	+2	—
O Flat Soft Point	—	d6 +2	+3	+1
P Hollow Point	G	d6 +1	+3	+1
Q Pointed Hollow Point	—	d6 +2	+3	—
OTHER PROJECTILES				
R Explosive Light	—	d6 +3	+1	—
S Explosive Standard	F3	d6 +2	+5	+2
T Explosive High	—	d6 +6	+8	+4
U Flechette	I	d8 +1	—	—
V Dart	J	(See V under Pistols Pg. 150)	—	—
W Stun Bullets	R	d4 -2	—	+4
X Depleted Uranium	U	d12 +6	+2	+3
Y Tagging (paint pellet)	K	1 pt.	—	—
PRE FRAGMENTED ROUND				
Z Glazer Safety Slug	—	d6 +4	+4	+4
2d6 straight penetration, then add the result of the dice of damage as WBD.				
STUN ROUNDS				
SR Rubber Bullet	—	d4	—	+4
SRb Rubber Bullet 37mm	—	d4	—	+8



MISFIRE CODES

TYPE B FOR BLACK POWDER WEAPONS
 01-75 Hangfire (d6 +1 actions until it fires)
 76-95 Mechanical Break or Jam of Weapon
 96-98 Weapon Explodes (A)
 99-00 Weapon Explodes (B)

TYPE D FOR CARTRIDGE WEAPON
 01-75 Cartridge Jams
 76-98 Mechanical Break
 99 Weapon Explodes (A)
 00 Weapon Explodes (B)

TYPE F FOR CASELESS AMMUNITION
 01-75 Jammed Shell
 76-98 Smashed Shell
 99 Weapon Explodes (A)
 00 Weapon Explodes (B)

TYPE G FOR REVOLVERS
 01-75 Dud Round
 76-98 Bullet pops out of case and jams gun. Requires a skill of Gunsmith 2 or equivalency to repair.
 99 Weapon Explodes (A)
 00 Weapon Explodes (B)

TYPE Z FOR ENERGY WEAPONS
 01-75 Electronic Failure
 76-98 Power Failure
 99 Weapon Explodes (A)
 00 Weapon Explodes (B)

WEAPON EXPLODES

- A** Victim takes 2d6 WBD damage from detonating weapon and d4 fragments that hit with d6+1 penetration each in random areas.
- B** Victim takes 2d6 WBD damage from detonating weapon and d4 fragments that hit with d10+1 penetration in random areas.

HYDROSTATIC SHOCK OPTION

As living objects take damage from high velocity projectiles, the phenomenon of hydrostatic shock damage often happens. When a high velocity bullet hits soft tissue, it creates a wavefront of energy that can disrupt and severely damage the surrounding tissues.

Whenever this (HSM) code is listed, roll on the Hydrostatic Shock table with the listed modifiers.

HYDROSTATIC SHOCK =
Bullet HS + Weapon HS + HS Modifier

REMEMBER

- 01 Hydrostatic Shock does not add to the round's ability to penetrate an object.
- 02 Add the additional HS damage as Whole Body Damage after the general body damage has been calculated.

KNOCK DOWN OPTION

A second optional factor you can use is Knockdown, the body's reaction to a high velocity impact.

KNOCKDOWN =
Bullet KD + Weapon KD + KD Modifier

MODIFIERS	HYDROSTATIC	KNOCKDOWN
Tumbling Bullet	+4	—
Shrapnel, Small	—	+1
Shrapnel, Large	+1	+2
Multiple Hit, -Each Round After First	—	+1

HYDROSTATIC & KD RANGE MODIFIER

This optional modifier adds a (-1) to any Hydrostatic Shock and Knockdown modifier at EX and EX+ ranges.

HYDROSTATIC

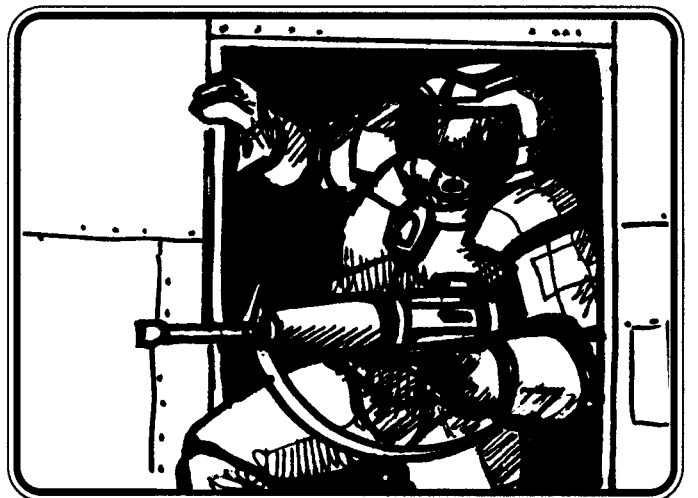
DAMAGE RESULT	ADDITIONAL DAMAGE
01-08 No Effect	No
09 Minimal	d6
10 Light	d6 + 2
11 Medium	d6 + 4
12 Heavy	d6 + 6
13 Very Heavy	d6 + 8
14 Critical	d6 +10 (* x1.05)
15 Terminal	d6 +12 (* x1.10)

(*) Add the additional percentage to any Wound Shock or Death Shock rolls.

KNOCKDOWN RESULT

RECOVERY TIME IN ACTIONS

01-07 No Effect	
08 Jerk	d4 -1
09 Shove	d4
10 Jerked Back	d4 +1
11 Knocked on Rump	d4 +2
12 Bowled Over	d4 +4
13 Knocked Flat	d4 +8
14 Slammed Flat	d4 +10



PRIMITIVE & EARLY FIREARMS

PRECURSOR

								'Passelbroch'		
ROF	1	AMO	A	PB	VS	SH	ME	LO	EX	
ROL	F	CYC	n/a	+1	-2	-6	-14	-18	-20	
CAP	1	WTE	4.0	EFFECTIVE			EX+			
CIR	1350	MIS	75% ^b	2d			1d			
HSM	--	KDM	+3	SPC (ei)			EF=04			

This ancient black powder weapon is the first of the European hand-held firearms that were more bang than bullet. (*Rocks*)

HAND GONNE

								'Tannenberger Buche'		
ROF	1	AMO	AB	PB	VS	SH	ME	LO	EX	
ROL	E	CYC	n/a	-1	+2	+1	-4	-14	-18	
CAP	1	WTE	11.0	EFFECTIVE			EX+			
CIR	1400	MIS	25% ^b	3d			1d			
HSM	--	KDM	+3	SPC (e)(IGA,PDA)			EF=09			

The first 'production' hand held, brass firearm mounted on a pole. Simply a small black powder cannon. (*.75 cal. Ball*)

WHEELLOCK

								'Dag'		
ROF	1	AMO	B	PB	VS	SH	ME	LO	EX	
ROL	E	CYC	n/a	+2	+1	+0	-3	-6	-12	
CAP	1	WTE	5.0	EFFECTIVE			EX+			
CIR	1520	MIS	15% ^b	3d			1d			
HSM	--	KDM	+3	SPC (eh)(IGAB,PDB)			EF=05			

First black powder firearm that did not require an external flame for ignition. In voluminous costume, it is concealable. (*.45 cal. Ball*)

FLINTLOCK PISTOL

								'Kentucky Pistol'		
ROF	1	AMO	B	PB	VS	SH	ME	LO	EX	
ROL	E	CYC	n/a	+2	+2	+0	+1	-4	-8	
CAP	1	WTE	2.5	EFFECTIVE			EX+			
CIR	1720	MIS	15% ^b	3d			1d			
HSM	--	KDM	+2	SPC (eh)(IGF,PDc4)			EF=09			

A popular black powder, muzzle loading, single shot pistol. Light and effective. (*.45 cal. Ball*)

FLINTLOCK PISTOL

								'Duelling Pistol'		
ROF	1	AMO	B	PB	VS	SH	ME	LO	EX	
ROL	E	CYC	n/a	+2	+3	+1	-1	-4	-8	
CAP	1	WTE	2.0	EFFECTIVE			EX+			
CIR	1777	MIS	10% ^b	3d			1d			
HSM	--	KDM	+2	SPC (h)(IGF,PDc4c5)			EF=09			

Used among 'gentlemen' to settle affairs of 'honour' for many years. May be found in sets. (*.45 cal. Ball*)

PERCUSSION PISTOL

								'Derringer'		
ROF	1	AMO	B	PB	VS	SH	ME	LO	EX	
ROL	D	CYC	n/a	+4	+2	+0	-2	-6	-12	
CAP	1	WTE	0.50	EFFECTIVE			EX+			
CIR	1840	MIS	8% ^b	3d			1d			
HSM	--	KDM	+2	SPC (ep)(IGG,PDc4)			EF=07			

The size and power of this weapon made it popular with assassins and gamblers through the American Civil War. May have single or double barrel depending on manufacture. (*.45 cal. Ball*)

CARTRIDGE REVOLVER

								'Colt Peacemaker'		
ROF	1	AMO	C	PB	VS	SH	ME	LO	EX	
ROL	B x6	CYC	n/a	+3	+2	+2	+0	-3	-7	
CAP	6	WTE	3.0	EFFECTIVE			EX+			
CIR	1873	MIS	5% ^g	4d			1d			
HSM	--	KDM	+4	SPC (cd)(IGJ,PDc4)			EF=08			

Popular 'Western Cowboy' weapon of the late 1800's. Weapon was usually carried with the hammer down on one empty chamber for safety. (*.45 cal. Colt*)

See Page 160 for Powder Ignition (IG) and Powder Type (PD)

EARLY MUSKET

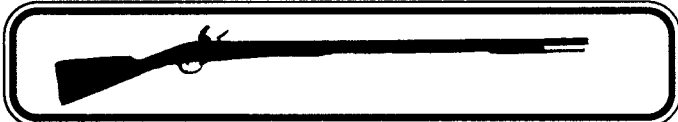
								'Blunderbus'		
ROF	1	AMO	AB	PB	VS	SH	ME	LO	EX	
ROL	E	CYC	n/a	+1	+2	+0	-3	-6	-12	
CAP	1	WTE	5.0	EFFECTIVE			EX+			
CIR	1690	MIS	15% ^b	4d			1d			
HSM	--	KDM	+5	SPC (f)(IGF,PDBc3)			EF=08			

The first 'coach' or 'sawed-off' shotgun that was frequently made with a folding bayonet. Fires lead ball, shot, rocks or scrap metal from its 1" muzzle. (*.1.0 cal. Ball*)

FLINTLOCK MUSKET

								'Brown Bess'		
ROF	1	AMO	B	PB	VS	SH	ME	LO	EX	
ROL	F	CYC	n/a	+1	+0	+0	-1	-5	-8	
CAP	1	WTE	10.0	EFFECTIVE			EX+			
CIR	1720	MIS	20% ^b	4d			1d			
HSM	--	KDM	+4	SPC (e)(IGF,PDc2)			EF=10			

British made musket that saw over a century of use around the world. Many model and barrel lengths exist. (*.75 cal. Ball*)



FLINTLOCK RIFLE

								'Kentucky Rifle'		
ROF	1	AMO	B	PB	VS	SH	ME	LO	EX	
ROL	E	CYC	n/a	-1	+1	+3	+2	+1	-4	
CAP	1	WTE	6.5	EFFECTIVE			EX+			
CIR	1700	MIS	10% ^b	4d			1d			
HSM	--	KDM	+2	SPC (d)(IGF,PDc4)			EF=13			

A popular black powder, muzzle loading, single shot rifle. Light and effective. (*.44 cal. Ball*)

LEVER ACTION RIFLE

								'Henry Repeating'		
ROF	1	AMO	C	PB	VS	SH	ME	LO	EX	
ROL	B x15	CYC	n/a	-1	+0	+2	+3	+1	+0	
CAP	15+1	WTE	7.0	EFFECTIVE			EX+			
CIR	1860	MIS	3% ^b	5d			2d			
HSM	+1	KDM	+3	SPC (d)(IGJ,PDc4)			EF=11			

For the time, an advanced cartridge rifle with an unusually large capacity. Saw some Civil War action. (*.44/40 Winchester*)

CARTRIDGE RIFLE

								'Springfield 1873'		
ROF	1	AMO	C	PB	VS	SH	ME	LO	EX	
ROL	C	CYC	n/a	-1	+0	+2	+3	+1	+0	
CAP	1	WTE	6.0	EFFECTIVE			EX+			
CIR	1873	MIS	3% ^b	5d			2d			
HSM	+1	KDM	+3	SPC (d)(IGJ,PDc3)			EF=12			

The Springfield 'Trap Door' was introduced for Army and Cavalry use. Effective but slow to load. (*.45 -70*)

CARTRIDGE RIFLE

								'Sharps Big 50'		
ROF	1	AMO	CE	PB	VS	SH	ME	LO	EX	
ROL	B	CYC	n/a	-3	+0	+2	+5	+2	+0	
CAP	1	WTE	6.5	EFFECTIVE			EX+			
CIR	1874	MIS	1% ^b	7d			3d			
HSM	+1	KDM	+3	SPC (ejm)(IGJ,PDc4)			EF=16			

The classic Buffalo rifle. (*.50 -90SS*)

CARTRIDGE RIFLE

								'Springfield M73'		
ROF	1	AMO	D	PB	VS	SH	ME	LO	EX	
ROL	B x10	CYC	n/a	-1	+0	+3	+1	-1	-6	
CAP	10+1	WTE	6.5	EFFECTIVE			EX+			
CIR	1873	MIS	1% ^b	5d			2d			
HSM	--	KDM	+3	SPC (d)(IGJ,PDc3)			EF=11			

The highly successful Winchester carbine was used for home defense and hunting. (*.44 -40*)

PISTOLS

The firearms most commonly used in the 25th century are handguns. Easily concealable, they can be ready at a moments notice and attract little attention while carried. All pistols are considered to have modern powder.

AMMUNITION NOTES

Ammunition type is listed as a code between two stars at the end of the text. Like listings are interchangeable. Weapons that fire the .357 Magnum round will also fire the .38 round at the damage of the .38 round.

CAPACITY +1

The +1 on the listed capacity indicates the weapon may have a round in the chamber as well as a full magazine.

RATE OF FIRE 'or' or 'to'

When the ROF has the word 'or', or 'to' the weapon can be fired 1 to 3 times in an action. A notation of 1/3 is an indicator of a burst control that can be set to 1 or 3.

												'Glock 56'		
ROF	1or2	AMO	FGHP	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+2	+2	+1	+0	-1	-4					
CAP	37+1	WTE	1.0	EFFECTIVE				EX+						
CIR	2108	MIS	1%d	5d				2d						
HSM	+1	KDM	+2	SPC (cdbk)				EF=12						

First of an outstanding line of heavier sidearms designed for ISCO Peacekeepers. Comes with standard laser sight. (*11mm*)

												'Walther PPK'		
ROF	1or2	AMO	FP	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+4	+4	+2	+0	-5	-9					
CAP	7+1	WTE	1.5	EFFECTIVE				EX+						
CIR	1929	MIS	1%d	3d				1d						
HSM	--	KDM	--	SPC (gp)				EF=08						

First popular pocket pistol to have a double action trigger. This allows a semi-auto pistol to be carried with the hammer down without setting the safety. (*.380 ACP*)

												'Colt M1911-A1'		
ROF	1or2	AMO	FGHJP	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+3	+2	+2	+0	-4	-8					
CAP	7+1	WTE	2.5	EFFECTIVE				EX+						
CIR	1920	MIS	1%d	3d				1d						
HSM	--	KDM	+3	SPC (cdbk)				EF=09						

The 'government' model .45 was one of the classic combat handguns of the 20th century. In modified form, it is still used for target shooting in 2448. (*.45 ACP*)

												'.38 Chiefs Special'		
ROF	1or2	AMO	CDEG	PB	VS	SH	ME	LO	EX					
ROL	B	CYC	n/a	+4	+3	+1	+0	-4	-8					
CAP	5	WTE	1.0	EFFECTIVE				EX+						
CIR	1934	MIS	1%g	3d				1d						
HSM	--	KDM	--	SPC (alp)				EF=08						

Saw extensive use with police agencies, this weapon was known as the 'snub nose .38'. A classic antique. (*.38 Special*)



												'H&K SAPS'		
ROF	1or2	AMO	FIT	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+4	+3	+5	+5	+4	+3					
CAP	14+1	WTE	1.7	EFFECTIVE				EX+						
CIR	2344	MIS	1%d	9d				8d						
HSM	+6	KDM	+8	SPC (hfk)				EF=16						

An outstanding and powerful pistol. Used by Police units during the Android Crisis. Built in Laser Sight, Night Scope and grenade launcher. See 40mm round equivalency (*.49 Magnum*)

												'Browning Starfire'		
ROF	1or2	AMO	FHTU	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	16	+4	+3	+2	+0	-5	-10					
CAP	15/60	WTE	1.2	EFFECTIVE				EX+						
CIR	2251	MIS	1%d	4d				2d						
HSM	+2	KDM	+1	SPC (cb)				EF=8						

The reliable Starfire can be a sidearm or a small machine pistol with the flip of a selector. (*10mm Caseless*)

												'Dabian MAG'		
ROF	1or2	AMO	FGHP	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+2	+2	+1	+0	-1	-4					
CAP	20+1	WTE	4.6	EFFECTIVE				EX+						
CIR	2390	MIS	2%d	10d				6d						
HSM	+4	KDM	+8	SPC (cdbk)				EF=17						

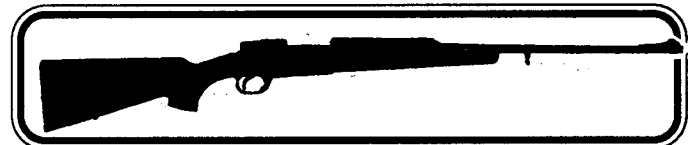
First in a new line of heavier sidearms designed for Dabes and larger Aliens. Comes with standard laser sight. (*17mm*)

												'Chi Fed Type 79'		
ROF	1or2	AMO	F	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+3	+3	+2	+0	-3	-6					
CAP	12+1	WTE	1.7	EFFECTIVE				EX+						
CIR	2099	MIS	1%d	4d				2d						
HSM	+1	KDM	--	SPC (c)				EF=09						

Long produced sidearm of the Peoples Corporate Republic before and after it amalgamated into ISCO (*10mm PCR Caseless*)

												'Wernzak IV'		
ROF	1or2	AMO	V	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+3	+2	+0	-2	-4	-8					
CAP	12+1	WTE	1.5	EFFECTIVE				EX+						
CIR	2303	MIS	1%d	See Page 155										
HSM	--	KDM	--	SPC (hj)				EF=01						

The standard Drug Dart launcher.



												'M1 Carbine'		
ROF	1or2	AMO	FGIMP	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	+0	+2	+3	+1	-5	-7					
CAP	5/15	WTE	5.5	EFFECTIVE				EX+						
CIR	1940	MIS	1%d	3d				1d						
HSM	+1	KDM	--	SPC (jmno)				EF=12						

First US semi-auto assault rifle used in WWII. CAP may be 5, 15, or 30. Another Classic. (*.30 Cal US Carbine*)

												'Weatherby 9700'		
ROF	1	AMO	SI	PB	VS	SH	ME	LO	EX					
ROL	A	CYC	n/a	-6	-04	+0	+4	+6	+8					
CAP	8+1	WTE	9.5	EFFECTIVE				EX+						
CIR	2107	MIS	1%d	16d				10d						
HSM	+5	KDM	+12	SPC (fmj)				EF=37						

Problems with 'big' predators was solved with a big solution in the form of the monstrous Weatherby 9700 (*.67 Nitro Express*)

RIFLE		'Winchester Model 94'							
ROF	1	AMO	O	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	+0	+0	+3	+2	+0	-2
CAP	6+1	WTE	7.0	EFFECTIVE			EX+		
CIR	1894	MIS	1% _d	6d			2d		
HSM	+2	KDM	+1	SPC (dj)			EF=14		

The most popular deer hunting rifle ever produced on Earth. Still produced in one form or another. (*.30-30 Winchester *)

SNIPER RIFLE		'ICL Silencer'							
ROF	1or2	AMO	FU	PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-2	+0	+2	+4	+4	+4
CAP	10	WTE	9.5	EFFECTIVE			EX+		
CIR	2438	MIS	1% _f	7d			3d		
HSM	+7	KDM	+2	SPC (dm)			EF=17		

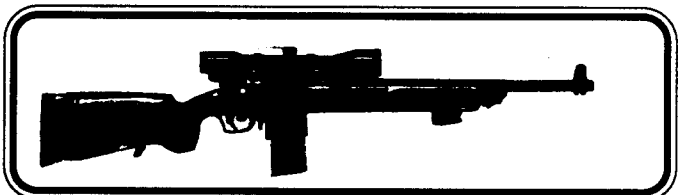
Standard ICL Sniper Rifle with built in AI (*12mm Caseless*)

RIFLE		'Colonial Model 398'							
ROF	1or2	AMO	CDEF	PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-1	+0	+3	+3	+2	+2
CAP	16	WTE	5.5	EFFECTIVE			EX+		
CIR	2003	MIS	1% _f	7d			2d		
HSM	+3	KDM	+2	SPC (djm)			EF=18		

Popular frontier rifle. (*7.62 Caseless*)

DART RIFLE		'Hartson 25 A1'							
ROF	1or2	AMO	V	PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-2	+0	+3	+2	+0	-2
CAP	6+1	WTE	8.0	EFFECTIVE			EX+		
CIR	2403	MIS	1% _d	See Page 155					
HSM	--	KDM	--	SPC (jmp)			EF=01		

Common dart firing rifle.



ASSAULT RIFLE		'Kalashnikova AK-47'							
ROF	1to3	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	20a	-1	+0	+2	+2	+0	-2
CAP	30	WTE	9.0	EFFECTIVE			EX+		
CIR	1948	MIS	1% _d	5d			2d		
HSM	+3	KDM	+1	SPC (dn)			EF=15		

The universal and easy-to-manufacture AK-47 has seen nearly 500 years of service in one form or another. (*7.62mm M43*)

ASSAULT RIFLE		'M16-A2'							
ROF	1to3	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	6a	-1	+1	+3	+3	-2	-3
CAP	30/50	WTE	6.5	EFFECTIVE			EX+		
CIR	1984	MIS	1% _d	4d			1d		
HSM	+4	KDM	--	SPC (jms)			EF=16		

The M16 saw combat until 2002 and then became a collectors item. Saw production again in the 2200's (*5.56mm*)

ASSAULT RIFLE		'Wolverine 906'							
ROF	1to3	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	25a	+0	+1	+3	+2	+2	+0
CAP	20/90	WTE	6.0	EFFECTIVE			EX+		
CIR	2311	MIS	1% _f	7d			3d		
HSM	+5	KDM	+02	SPC (icjn)			EF=19		

Standard close assault weapon for ICL and local forces. Has a short barrel and a folding stock. (*9mm ICL Caseless*)

ASSAULT RIFLE, KYMNAR		'Fistan Kann'							
ROF	1to3	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	25a	-1	+2	+3	+2	+12	+2
CAP	20/80	WTE	14.75	EFFECTIVE			EX+		
CIR	2358	MIS	1% _f	8d			5d		
HSM	+5	KDM	+5	SPC (bdjmn)			EF=19		

Kymnarn Kolling Thunder is the best description of this formidable Assault Rifle. (*11mm ICL Caseless*)

ASSAULT RIFLE		'States Model 3'							
ROF	1to3	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	10a	-1	+3	+4	+4	+4	+4
CAP	20/50	WTE	5.0	EFFECTIVE			EX+		
CIR	2408	MIS	1% _f	3d			1d		
HSM	+4	KDM	--	SPC (bijklmn)			EF=09		

Common and inexpensive weapon system with an amazing number of popular modifications available. (*7.9mm Caseless*)



ASSAULT RIFLE		'Steyr ACAR 40'							
ROF	1to3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	25a	-1	+0	+1	+2	+3	+1
CAP	200	WTE	8.0	EFFECTIVE			EX+		
CIR	2441	MIS	1% _f	5d			2d		
HSM	+4	KDM	+1	SPC (idjn)			EF=17		

High Tech AI descendent of the bull-pup assault rifles. The ACAR is easy to handle and has a scope built into the handle. Uses ammunition types INP as an option. (*7.9mm Caseless *)

ASSAULT RIFLE		'Paebak 6551'							
ROF	1or2	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	21a	-1	+1	+3	+3	+2	+1
CAP	35/50	WTE	12.0	EFFECTIVE			EX+		
CIR	2370	MIS	1% _d	5d			2d		
HSM	+4	KDM	--	SPC (odjkmn)			EF=16		

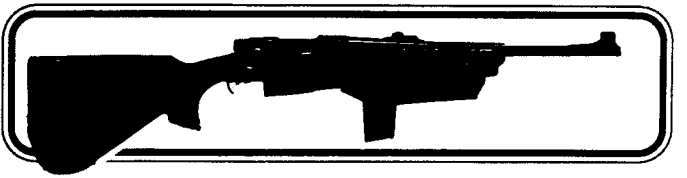
Reliable but heavy, the standard Paebak Assault rifle now finding use in the defence of the frontier. (*8.55mm PAK*)

ASSAULT RIFLE, HAGONNI		'Vorlon Chibirnee'							
ROF	1or2	AMO	FGI	PB	VS	SH	ME	LO	EX
ROL	A	CYC	12a	-1	+0	+2	+2	+1	+0
CAP	20/60	WTE	5.0	EFFECTIVE			EX+		
CIR	2100	MIS	1% _d	6d			2d		
HSM	+3	KDM	+1	SPC (bdjmn)			EF=18		

Popular Hagoni-made weapon duplicated and used by the Uranzi and other races fighting the Sphere of Prosperity. (*9.52mm HAG*)

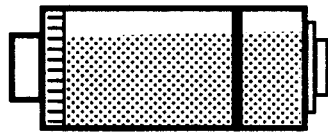
ASSAULT RIFLE, ZANKEE		'Death Burp'							
ROF	1to3	AMO	FGU	PB	VS	SH	ME	LO	EX
ROL	A	CYC	20a	-1	+0	+1	+2	+0	-2
CAP	420	WTE	9.0	EFFECTIVE			EX+		
CIR	?	MIS	5% _f	7d			4d		
HSM	+3	KDM	+1	SPC (ieln)			EF=16		

The standard Zankee assault weapon for planetary warfare. Easy to assemble and use. Built from sheet stamped parts, springs and 4 screws. Not reliable. (*8.53mm ZAN Caseless*)



Ruggels Arms

Leading Manufacturer of All Laser Sighting Devices since 2366



900 Yards Range
Projects a 2' Dot at 300 Yards

UNDER BARREL MOUNT AI LASERS

Supplier to ISCO	PB	VS	SH	ME	LO	EX
	+1	+1	+4	+5	+5	+5

SUB MACHINEGUN

								'Ingram M10'	
ROF	1to3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	34a	+1	+1	+0	-2	-4	-8
CAP	30	WTE	7.0	EFFECTIVE					EX+
CIR	1960	MIS	1%d			4d			1d
HSM	+1	KDM	--	SPC (bhs)					EF=10

Antique SMG (*9mm Parabellum*)

SUB MACHINEGUN

								'Israeli UZI'	
ROF	1to3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	20a	+0	+1	+2	+1	-5	-9
CAP	25	WTE	9.0	EFFECTIVE					EX+
CIR	1952	MIS	1%d			4d			1d
HSM	+1	KDM	--	SPC (bh)					EF=10

Standard Israeli Military weapon. (*9mm Parabellum*)

SUB MACHINEGUN

								'URU'	
ROF	1to3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	16a	+0	+1	+2	+0	-2	-4
CAP	32	WTE	9.0	EFFECTIVE					EX+
CIR	2200	MIS	1%d			4d			1d
HSM	+1	KDM	--	SPC (i)					EF=10

Standard issue to Brazilian forces. Saw long service with police agencies due to quality manufacture. (*9mm Parabellum*)

SUB MACHINEGUN, ANTIQUE

								'M3A1 Grease Gun'	
ROF	3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	15a	+1	+0	+0	-2	-4	-8
CAP	30	WTE	8.0	EFFECTIVE					EX+
CIR	1944	MIS	1%d			3d			1d
HSM	--	KDM	+3	SPC (dbi)					EF=09

Common Grease Gun in production for over 400 years. (*.45 ACP*)

SUB MACHINEGUN, BLOXIAN

								'Brul-Paka'	
ROF	1to3	AMO	F	PB	VS	SH	ME	LO	EX
ROL	A	CYC	24a	+2	+1	+0	-3	-7	-9
CAP	20/60	WTE	3.0	EFFECTIVE					EX+
CIR	2431	MIS	1%f			2d			1d
HSM	--	KDM	--	SPC (cbs)					EF=07

Bloxian weapon with a small size. (*6.44 BX Caseless*)

SUB MACHINEGUN

								'Wardrop Arms M27'	
ROF	1to3	AMO	FGHP	PB	VS	SH	ME	LO	EX
ROL	A	CYC	30a	+1	+2	+2	+1	-4	-6
CAP	92	WTE	2.5	EFFECTIVE					EX+
CIR	2298	MIS	1%d			4d			1d
HSM	+1	KDM	--	SPC (cbins)					EF=10

A compact and fast firing SMG. Used by Law Enforcement agencies and Security Agencies. (*9mm ICL Caseless*)

WEAPON SKILL BONUS

Remember, you gain a +1 on Accuracy per 3 levels of skill with a specific weapon.

SUB MACHINEGUN

								'M1928-D1 Thompson'	
ROF	1to3	AMO	F	PB	VS	SH	ME	LO	EX
ROL	A	CYC	12a	+0	+0	+0	-2	-4	-8
CAP	50/90	WTE	17.0	EFFECTIVE					EX+
CIR	1928	MIS	1%d			9d			6d
HSM	--	KDM	+6	SPC (ofkm)					EF=20

The 'Tommy Gun' has become the Dabe weapon of choice. Re-tooled into a heavier and larger format, it is nearly impossible for the lighter races to use. (*.55 ACP*)

SUB MACHINEGUN, KYMNAR

								'Ka Kann'	
ROF	1to3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	18a	+0	+0	+0	-2	-4	-8
CAP	20/40	WTE	7.5	EFFECTIVE					EX+
CIR	2205	MIS	5%d			5d			2d
HSM	--	KDM	+2	SPC (ie)					EF=10

Considered a Kymnarn sidearm, the 'Little Thunder' has a folding stock and a high tendency to jam. (*11mm KYM*)

SUB MACHINEGUN, BORCHA

								'Wa'Che'Okk'	
ROF	1to3	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	10a	+1	+1	+0	-2	-4	-6
CAP	165	WTE	9.0	EFFECTIVE					EX+
CIR	2400	MIS	1%d			7d			4d
HSM	+1	KDM	+3	SPC (bh)					EF=12

This ugly side arm has proven to be a favorite of Bor'Chas in the first few years of use. Called 'Lotsa Flying Copper' (*11mm ICL*)

SUB MACHINEGUN, PAEBAK

								'Gehaw 4417'	
ROF	1to4	AMO	FGH	PB	VS	SH	ME	LO	EX
ROL	A	CYC	20a	+2	+1	+1	-2	-4	-6
CAP	50/90	WTE	7.0	EFFECTIVE					EX+
CIR	2447	MIS	1%d			5d			3d
HSM	+1	KDM	+3	SPC (bhjs)					EF=11

Another over-engineered Paebak SMG known for reliability in extremes of environment. Fires a single shot, four round burst or at CYC. Standard with a built in grenade launcher. (*8.5mm ICL*)

SUB MACHINEGUN

								'ICL Standard'	
ROF	1or5	AMO	F	PB	VS	SH	ME	LO	EX
ROL	A	CYC	32a	+2	+2	+4	+2	+0	-2
CAP	100+	WTE	10.0	EFFECTIVE					EX+
CIR	2307	MIS	1%f			3d			1d
HSM	+1	KDM	+3	SPC (dn)					EF=10

Feeds from a box or belt. Can be dismantled and packed in a briefcase. Reassembles in 30 seconds. (*9mm Caseless*)

MACHINEGUN

								'M60K LMG'	
ROF	1to5	AMO	FHI	PB	VS	SH	ME	LO	EX
ROL	D	CYC	20a	+0	+0	+2	+4	+0	-2
CAP	200	WTE	15.0	EFFECTIVE					EX+
CIR	2083	MIS	1%d			7d			3d
HSM	+5	KDM	+3	SPC (mn)					EF=19

A belt fed, lightweight machinegun of basic design that has remained a standard for centuries. (*7.62mm ICO*)

MACHINEGUN, KYMNAR

								'Hisst'n Kann'	
ROF	3	AMO	F	PB	VS	SH	ME	LO	EX
ROL	A	CYC	25a	+0	+0	+0	-2	-4	-8
CAP	450	WTE	23.5	EFFECTIVE					EX+
CIR	2150	MIS	2%d			9d			5d
HSM	+3	KDM	+4	SPC (fmn)					EF=17

Called 'Screaming Thunder' by its Kymnarn makers, this monstrous weapon has seen use by ICL Kymnarn Marines. May be Vehicle or Tripod mounted for Human use. (13.7mm KYM*)

MACHINEGUN

				'ICL .50 Cal.'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1to3									
ROL D	CYC	25a	-2	+0	+2	+4	+5	+5	
CAP 400+	WTE	64.0	EFFECTIVE			EX+			
CIR 2305	MIS	1%f	11d			9d			
HSM +7	KDM	+8	SPC (j)			EF=30			

The design of the old US 50 Cal. is used against vehicles, buildings, and aircraft. Must be mounted on tripod or vehicle. Can be carried by Dabe or Humanoids in Exo-Armor (*.50 Caseless*)

MACHINEGUN

				'ICL Mini-Gun'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1									
ROL D	CYC	25/200	-2	+0	+2	+3	+5	+4	
CAP 5000	WTE	30.0	EFFECTIVE			EX+			
CIR 2410	MIS	1%f	5d			2d			
HSM +4	KDM	--	SPC ()			EF=16			

A six barrel electrically operated system. Must be mounted on a vehicle. Cannot be carried and fired. (*5.76 Caseless*)

LASERS

Use of most energy weapons is dependent on CHA or Charge. Each die of damage the weapon produces reduces the Charge by 1 point. The listed laser pistol has an effective range of 4d or four dice of damage. This is also the Charge lost per firing. The weapon may also be set to PULSE or rapid fire 2 to 3 times per pull of the trigger. All damage is burn/penetration in d6's. Recharge in d100 minutes or with a plug in pack.

LASER PISTOL

				'Mk 4 Burner'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	--								
ROL C	PUL	3	-1	+2	+4	+4	+3	+3	
CHA 100	WTE	3.0	EFFECTIVE			EX+			
CIR 2240	MIS	2%z	4d Burn			3d Burn			
HSM --	KDM	+1	SPC (s)						

Basic Laser sidearm used on starships and in space.

LASER RIFLE

				'Leopard 86'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	--								
ROL C	PUL	6	-1	+2	+4	+4	+3	+3	
CHA 200	WTE	5.0	EFFECTIVE			EX+			
CIR 2207	MIS	2%z	5d Burn			4d Burn			
HSM --	KDM	+2	SPC (s)						

Basic Laser Rifle used in exploration and on the frontier.

LASER ASSAULT RIFLE

				'Brazilia AMKO'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	--								
ROL C	PUL	8	-1	+2	+4	+4	+4	+4	
CHA 1500	WTE	11.0	EFFECTIVE			EX+			
CIR 2170	MIS	8%z	8d Burn			7d Burn			
HSM --	KDM	+3	SPC (s)						

Early Brazilian Assault Weapon designed for use in space. Earlier versions used a backpack for power. Later versions were lighter and used a slide in power pack.

LASER, HEAVY ASSAULT

				'NB ARMS 244'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	--								
ROL C	PUL	3	-6	+0	+6	+6	+6	+6	
CHA 9500	WTE	47.0	EFFECTIVE			EX+			
CIR 2440	MIS	4%z	20d Burn			18d Burn			
HSM --	KDM	+5	SPC (s)						

These lasers can be powered from a vehicle or backpack power source of 5000+ points charge or continuous.

PARTICLE RIFLE, ZANKEE LIGHT

				'Death Burn'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	*								
ROL B	CYC	n/a	-1	+3	+5	-3	-6	-9	
CHA 950	WTE	16.5	EFFECTIVE			EX+			
CIR ?	MIS	2%z	8d10			6d10			
HSM --	KDM	--	SPC (ojmn)						

A heavy duty maser weapon used by Zankée Raiders. Creates hideous damage and burn in living tissue. Recharges in 2 hours.

PARTICLE RIFLE, ZANKEE HEAVY

				'Big Burn'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	*								
ROL B	CYC	n/a	-1	+3	+5	-3	-6	-9	
CHA 1200	WTE	24.0	EFFECTIVE			EX+			
CIR --	MIS	2%z	12d10			8d10			
HSM --	KDM	--	SPC (jmn)						

FLAME THROWER

				'Colonial Arms Brushfire'			
ROF	AMO	FGI	PB	VS	SH	ME	LO
1	20 uses						
ROL F	CYC	n/a	MINIMUM		MAXIMUM		
CAP 4.0g	WTE	45.0	RANGE		RANGE		
CIR 2200	MIS	2%	7 ft.		120 ft.		

Burns with 8d10 Fire Damage

A small backpack flame thrower with a hand-held flamegun. Has 30 charges and a maximum range of 120 feet for the stream of fire. A misfire is a clog in the weapon or a failure to ignite. If 60 points of incendiary shell hit the backpack tank there will be a puncture but no chance of explosion due to the tank's special liner. The puncture will cause a stream of burning fuel to spray from the tank until it empties. Fuel may be ignited or cold when sprayed.

SPRAYER

				'Yardmaster'			
ROF	AMO	FGI	PB	VS	SH	ME	LO
1	20 uses						
ROL F	CYC	n/a	MINIMUM		MAXIMUM		
CAP 4.0g	WTE	35.0	RANGE		RANGE		
CIR 1995	MIS	2%	3 ft.		100 ft.		

A small backpack liquid sprayer with a hand-held gun. Has 20 charges. A misfire is a clog in the weapon. The tank is holed with 25 points of puncture damage. Sprays any liquid combination.

LIGHT GAS LAUNCHER

				'ICL Thumper 40'			
ROF	AMO	FGI	PB	VS	SH	ME	LO
1	RB						
ROL B	CYC	n/a	MINIMUM		MAXIMUM		
CAP 1	WTE	7.0	RANGE		RANGE		
CIR 2365	MIS	2% fails	20 ft.		300 ft.		

A shotgun styled weapon that launches a 40mm round of variable gas, flare, or stun bullet. (Use 40mm table data Pg. 147 & 161)

GYROJET PISTOL

				'Slugmaster 10'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1to3	FJX								
ROL A	CYC	n/a	+2	+1	0	-2	-4	-6	
CAP 17+1	WTE	2.0	EFFECTIVE			EX+			
CIR 2285	MIS	1%f	1d	2d	5d	6d	7d	7d	
HSM +1	KDM	+4	SPC (cj)						

A gyrojet firing pistol with an explosive round that does an extra d10+5 damage on a 75% chance of detonation after arming at (SH) short range. (*10mm Gyro*)

GYROJET RIFLE

				'Slugmaster 12'					
ROF	AMO	FGI	PB	VS	SH	ME	LO	EX	
1	FJHX								
ROL C	CYC	n/a	-2	0	+1	-1	-2	-4	
CAP 10+1	WTE	5.0	EFFECTIVE			EX+			
CIR 2289	MIS	1%d	1d	2d	5d	8d	9d	9d	
HSM +2	KDM	+5	SPC (djmn)						

A gyrojet rifle with an explosive round that does an extra d10+10 damage on a 75% chance of detonation. (*12mm Gyro*)

EXOTIC & ALIEN WEAPONS

Not only human designed, but truly alien weapons are being incorporated into use on the Frontier and settled space.

WHURR ZECCHH

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	Feed	CYC	n/a	-1	Contact Only				
CHA	12	WTE	.09	EFFECTIVE				EX+	
CIR	-?	MIS	2%z	80% Stun					
HSM	--	KDM	+6	SPC ()				EF=n/a	

Easily recharged by feeding, this 'mercy' weapon is a biological construct used by the Whurr. Damage from a Zecchh is like being hit with a Taser. Larger than humanoid targets have a half chance of being stunned.

SCRAMBLER WAND, FRITZIAN

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	+6	+3	+2	-3	-6	-9
CHA	200	WTE	.25	EFFECTIVE				EX+	
CIR	--	MIS	1%z	3d6				d6	
HSM	--	KDM	--	SPC ()					

Each charge that hits reduces INT, WIS, DEX, STR, and AGL by 3d6 points each. When all reach 0 the victim sits quietly and drools. Each recovers 2d6 points per 30 minutes.

FLAMER RIFLE, GREXIAN

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-2	+2	+7	+2	-4	-8
CAP	25	WTE	3.5	EFFECTIVE				EX+	
CIR	2447	MIS	2%z	4d10 Burn				2d10 Burn	
HSM	--	KDM	--	SPC ()					

The unusual flamer is a small and light gas weapon that spits a ball of fire. On contacting a target or obstruction, the ball bursts to cover a 3 foot area.

C'LASER PISTOL

'GE Starburst 310'									
ROF	1or2	AMO *		PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-1	+2	+4	+4	+3	+2
CAP	10+1	WTE	1.7	EFFECTIVE				EX+	
CIR	2310	MIS	4%z	3d6 Burn				2d Burn	
HSM	--	KDM	+1	SPC (eh)					

Other designs of laser can use battery/cartridges that are expended and ejected like a casing. These are simple, one-shot electrochemical cartridges that create a lasing effect. In this way a laser can become a hybrid of lower technology and higher, creating Laser Assault Rifles and Revolvers not much different than turn of the 21st century weapons. (*14mmLAZ*)

C'LASER RIFLE

'RA Hotlight'									
ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-3	-1	+2	+4	+4	-4
CAP	20	WTE	10.0	EFFECTIVE				EX+	
CIR	2007	MIS	6%z	7d6 Burn				4d Burn	
HSM	--	KDM	33	SPC (em)				(*14mmLAZ*)	

Ruggels Arms production model of the first effective C' Laser rifle. Now a standard for the C'Lasz Arms Industry.

C'LASER ASSAULT RIFLE

'Brazilia Sunrise'									
ROF	1to3	AMO *		PB	VS	SH	ME	LO	EX
ROL	A	CYC	20a	-1	+0	+2	+2	+0	-2
CAP	140	WTE	9.0	EFFECTIVE				EX+	
CIR	2380	MIS	3%z	5d6 Burn				3d Burn	
HSM	+3	KDM	+2	SPC (dn)					

More recent addition to the ICL weapons inventory. Modified for the grip of a number of races. (*9mmLAZ*)

BLASTER PISTOL, FRITZIAN

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	+0	-2	-4	-8	-16
CHA	120	WTE	2.5	EFFECTIVE				EX+	
CIR	--	MIS	2%z	3d10				2d	
HSM	--	KDM	+2	SPC (cpk)					

BLASTER RIFLE, FRITZIAN

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	+0	-1	-2	-4	-8
CHA	220	WTE	7.5	EFFECTIVE				EX+	
CIR	--	MIS	2%z	6d10				3d	
HSM	--	KDM	+4	SPC (od)					

HEAVY BLASTER RIFLE, FRITZIAN

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-2	+2	+4	+2	-2	-4
CHA	540	WTE	12.5	EFFECTIVE				EX+	
CIR	--	MIS	2%z	9d10				5d	
HSM	--	KDM	+8	SPC (dm)					

The blasters covertly sold by the Fritizians are clean and elegant weapons that create an explosive field effect on the surface of the target. This is a shreading blast as if an explosive was used. Recharge in 11 minutes at 60 volts AC. Use d10 for base dice.

BLASTER, VESH

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-3	+2	+4	+2	-2	-4
CHA	750	WTE	24.5	EFFECTIVE				EX+	
CIR	--	MIS	2%z	18d6				12d	
HSM	--	KDM	+12	SPC (em)					

With a similar function to the Fritizian blaster, this Bio-engineered version is a living arm attachment for a Vesh Warrior. Can not be recharged. Use d6 for the base dice.

STUN WAND, KRELVIN

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	+3	+5	--3	-6	-9
CHA	100	WTE	.25	EFFECTIVE				EX+	
CIR	--	MIS	2%z	4d10				2d6	
HSM	--	KDM	--	SPC (cp)					

Shots from stunners disrupt the central nervous system. Use the damage from the shot and add it to the d100 Cosh roll as a modifier. This 'stun' effect will not kill. These weapons recharge in 6 minutes at 40 volts AC. (See Also Cosh Pg. 108)

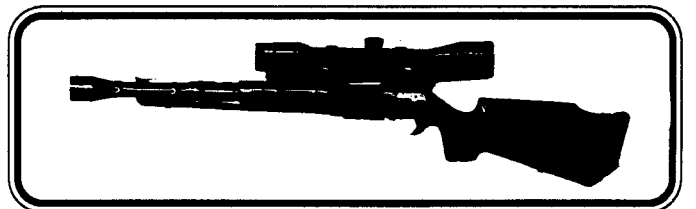
STUNNER RIFLE, BARLOW

ROF	1	AMO *		PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-1	+3	+5	-3	-6	-9
CHA	150	WTE	4.5	EFFECTIVE				EX+	
CIR	--	MIS	2%z	8d6				4d	
HSM	--	KDM	--	SPC ()					

This unusual weapon appears to be made entirely of polished wood. When it fires it reduces WIZ and INT (divide 8d6 between) while creating a side effect of euphoria. Lasts 4 hours.

GM's NOTES

Use these sparingly and only with highly competent or experienced players.



DRUG DARTS

These rounds are small darts that contain any of a number of drugs. The Break percentage is the chance the dart will impact and break rather than inject the drug. The power of the dart round, V1-7, and the contents are the choice of the agent. Darts also can come prepackaged for specific target types.

DART PENETRATION in d4

V ROUND	PB	VS	SH	ME	LO	EX	BREAK
V1	2	1	1	.50	.50	.25	02%
V2	3	2	2	1	1	.50	03%
V3	4	3	3	2	1	1	03%
V4	5	4	4	3	2	1	05%
V5	6	5	5	4	3	2	10%
V6	7	6	6	5	4	3	20%
V7	8	7	7	6	5	4	35%

REMEMBER

- 01 Darts can be filled with anything.
- 02 Use the Time To Effect Chart on Pg. 161 for guidelines on drug reaction time. Also see Toxins Pg. 118.

SPLAT PISTOL

ROF	1/3	AMO	Y	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	+1	+2	+4	-1	-4	-8
CAP	20	WTE	2.0	EFFECTIVE			EX+		
CIR	1990	MIS	5%f	1d			1d		
HSM	--	KDM	--	SPC (hjkl)					

SPLAT RIFLE

ROF	1/3	AMO	Y	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	+0	+2	+1	-1	-4
CAP	50	WTE	10.0	EFFECTIVE			EX+		
CIR	1990	MIS	5%f	1d			1d		
HSM	--	KDM	--	SPC (nm)					

Like the pistol, fires a pellet of fluid that ruptures on contact with the target. May be filled with drug, chemical, or even a corrosive.

SHOTGUNS

The most effective close combat weapon is the shotgun. These pellet firing descendants of the simple cannon have versatility and outstanding stopping power. Unfortunately we need a much more complex system to rate damage realistically. We can explain shotgun damage with two systems.

01 EASY DAMAGE

Any damage a shotgun does will be in ten sided dice. Use this resulting damage to reduce Hit Points / WBD. For small shotguns like 16 and 20 guage use six sided dice to reduce HPT.

EXAMPLE

Kathleen catches a blast from a shotgun at short range. The weapon's **choke** is open and she receives 7 dice of damage or 7 to 49 points of Hit Point or WBD reduction.

THE SHOTGUN CHOKE

Shotguns often have a 'choke', or constricting device, that controls the spread of the pellets fired. A full choke limits spread of the pellets over a distance, while an open choke is like firing an unchoked shotgun. Modified is generally a point between.

SHOTGUN DAMAGE EASY SYSTEM

CHOKE

	PB	VS	SH	ME	LO	EX
OPEN	9d	8d	7d	6d	3d	1d
MODIFIED	10d	9d	8d	7d	4d	2d
FULL	12d	11d	10d	8d	5d	3d

OPTIONAL

SHOTGUN GAUGE MULTIPLIER

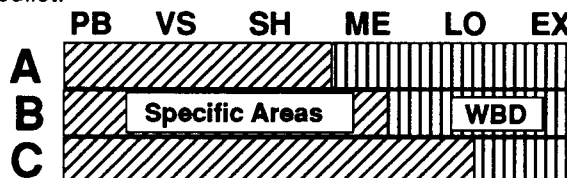
10 Gauge	Damage x 1.25
12 Gauge	As Listed
16 Gauge	Damage x 0.75
20 Gauge	Damage x 0.50

02 MORE REALISTIC DAMAGE

This system uses the detailed body tables at closer ranges and WBD at far ranges. Closer shots require checking a number of factors including number of shotgun pellets, pattern spread, and **choke** setting.

DAMAGE AT LONGER RANGES

Shotgun damage is either WBD for longer ranges or specific area damage at closer ranges. Shotgun shot, the lead or steel balls that make up the round, penetrate's like any bullet.



A Open Choke B Modified Choke C Full Choke

INDEX RANGE FROM TARGET

Index your range from the target on the following table. Your damage will be WBD or specific area.

WBD TYPE DAMAGE

If your damage is WBD, use the above easy system for that range but do not use a d10 for your damage. Index the type of shotgun round from the following table and use the DICE column to find the type of dice you need to roll. Use the above shotgun Gauge Modifier as an option for modifying your damage total.

TYPE	PELLETS	DICE OF DAMAGE						USE DICE
		PB	VS	SH	ME	LO	EX	
Slug	1	9a	8a	7a	6a	3a	2a	d10
000 Buck	d8	8a	7b	5c	3d	1h	1h	d6
00 Buck	d10	7b	6c	4d	2e	1h	1h	d6
0 Buck	d12	6c	5d	3e	2f	1h	1h	d6
#1 Shot	2d8	4d	3c	2f	1g	1h	1h	d4
#4 Shot	3d20	3d	2c	1f	1g	1h	1h	d2



HOW MANY PELLETS HIT?

Next randomize the number of pellets shot and quantity of pellets hitting. All listings above are for a shotgun set on normal fire. If a choke is used consult the next table for a change in the pattern of the damage spread. (See Also Pg. 141) From the above table you also get a code for the spread pattern of the shot indexed by range. Index that letter code to the following table and choose the choke of the shotgun. When you have both, index to the right to find the number of body areas hit. From there use the body tables (Pg. 126) and treat each pellet as a normal projectile.

FUL =Full Choke MOD=Modified Choke OPE= Open			
FUL	MOD	OPE	AREA EFFECT
a	a	b	a Single Area Hit
a	b	c	b Two Adjacent Areas Hit
b	c	d	c Three Adjacent Areas Hit
c	d	e	d Four Adjacent Areas Hit
d	e	f	e Wide-Spread Same Area
e	f	g	f Very Wide-Spread (2 areas)
f	g	h	g Extreme-Spread (d4 areas)
-	h	-	h WBD Damage Only

ACTUAL SHOTGUN ROUND DATA

A third optional method for realism is to index the Gauge of the shotgun by the actual ammunition. Listed in this new edition of FTL: 2448 are shotgun AMO types Imq for shotguns only. If you use this section, run your number of pellets hitting through the automatic weapons fire resolution chart on Pg. 141 to find the general number of pellets hitting. Use the body tables after that. (See also Pg. 126)

COMMON SHOT TYPE	SHOT DIAMETER	SHOTGUN GAUGE			
		10	12	16	20
l 000 Buck	.36"	12	08	06	03
l1 00 Buck	.33"	16	09	07	04
l2 0 Buck	.32"	18	12	09	05
l3 1 Buck	.30"	20	16	12	07
l4 3 Buck	.25"	37	25	22	18
l5 4 Buck	.24"	54	27	25	21
m BB Shot	.18"	100	63	56	50
m6 7.5 Shot	.095"	700	438	394	350
q Slug (AMO D)		01	01	01	01

SHOTGUN GAUGE MULTIPLIER

GAUGE	Damage Modifier	HSM+	KDM+
10 Gauge	Damage Penetration x 1.25	+6	+8
12 Gauge	Damage Penetration As Listed	+5	+7
16 Gauge	Damage Penetration x 0.75	+4	+6
20 Gauge	Damage Penetration x 0.50	+3	+5

EXAMPLE

Electro Thermal
12 gauge x1.22



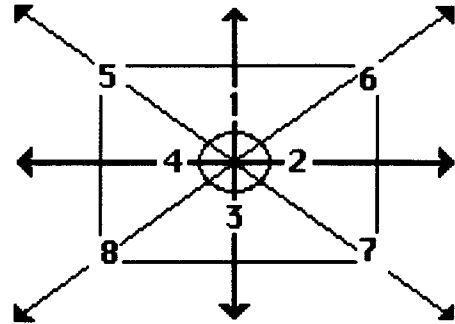
Old Size



New Size

AREAS HIT

Always pick a central point for the first pellet that hits. After, use the above shot spread table and randomize the direction of the adjacent hits. Use an 8 sided die.



GENERIC SPORTING SHOTGUN

ROF	1or2	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	0	+2	+1	0	0
CAP	2	WTE	6.5	--	--	--	--	--	--
CIR	1990	MIS	1%d	SPC (eq)					EF=08

This is a generic listing for a myriad of different brands of firearm fitting the same description. (*10,12,20 or .410 Gauge*)

GENERIC PUMP SHOTGUN

ROF	1	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	0	+2	+1	0	0
CAP	5+1	WTE	7.5	--	--	--	--	--	--
CIR	1960	MIS	1%d	SPC (enr)					EF=08

GENERIC LIGHT SHOTGUN

ROF	1	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	0	+2	+1	0	0
CAP	1	WTE	5.0	--	--	--	--	--	--
CIR	1950	MIS	1%b	SPC (d)					EF=06

HEAVY SHOTGUN

ROF	1	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	B	CYC	n/a	-1	0	+2	+1	0	0
CAP	4+1	WTE	9.0	--	--	--	--	--	--
CIR	1980	MIS	1%d	SPC (fr)					EF=09

ASSAULT SHOTGUN

'ICL High Standard'

ROF	1to3	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	A	CYC	10a	-1	0	+2	+1	0	0
CAP	40	WTE	11.0	--	--	--	--	--	--
CIR	2291	MIS	1%d	SPC (ds)					EF=08

ICL MARINE ASSAULT SHOTGUN

'RA 12-F'

ROF	1to3	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	A	CYC	15a	-1	0	+2	+1	0	0
CAP	80	WTE	6.0	--	--	--	--	--	--
CIR	2402	MIS	1%f	SPC (ds)					EF=10

Uses Electro Thermo Rounds. (*12gauge Caseless*)

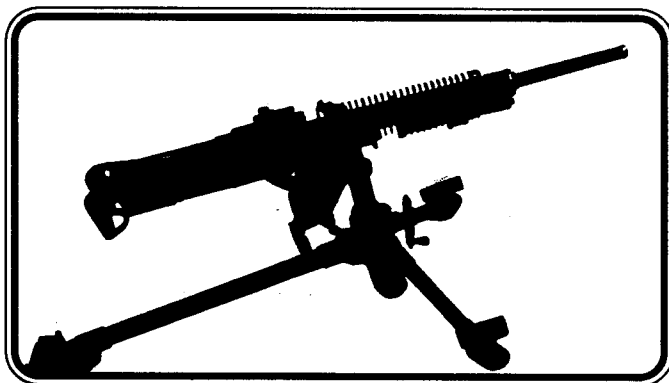
HEAVY ASSAULT SHOTGUN

'Ranger'

ROF	1to5	AMO	Imq	PB	VS	SH	ME	LO	EX
ROL	A	CYC	25a	-1	0	+3	+2	+1	0
CAP	95	WTE	8.5	--	--	--	--	--	--
CIR	2414	MIS	1%d	SPC (ds)					EF=12

ELECTRO THERMAL ROUNDS

These smaller rounds are electrically fired chemical propellant that reduces round size by half. This gel converts to plasma and gas. Waterproof and shock proof, in standard cartridges and new 'Half Sized' rounds for Assault Shotguns.



HEAVY WEAPONS

For the sake of simplicity in dealing with Other Earth Manufacture of Heavier Weapons, generic Earth versions or equivalencies are listed. The GM is encouraged to modify these as he sees fit.

GRENADE LAUNCHER (Shotgun Style)

ROF	1	AMO	40mm Variable		
ROL	B	CYC	n/a	MINIMUM	MAXIMUM
CAP	1	WTE	4.0	RANGE	RANGE
CIR	2426	MIS	1% ^d	50 ft.	2000 ft.

A simple, shotgun-style grenade launcher. Later versions for the 25th Century have built in targeting AI computers.

GRENADE LAUNCHER, PUMP ACTION 'FCC 400'

ROF	1	AMO	40mm Variable		
ROL	B	CYC	n/a	MINIMUM	MAXIMUM
CAP	6+1	WTE	7.0	RANGE	RANGE
CIR	2392	MIS	1% ^d	20 ft.	2000 ft.

Resembles an oversize Pump Shotgun.

GRENADE LAUNCHER (Under Weapon)

ROF	1	AMO	40mm Variable		
ROL	B	CYC	n/a	MINIMUM	MAXIMUM
CAP	1	WTE	1.0	RANGE	RANGE
CIR	2096	MIS	1% ^d	50 ft.	2000 ft.

A 40mm grenade launcher for most assault rifles.

GRENADE LAUNCHER (Pistol Style)

ROF	1	AMO	40mm Variable		
ROL	B	CYC	n/a	MINIMUM	MAXIMUM
CAP	1	WTE	4.0	RANGE	RANGE
CIR	2007	MIS	1% ^d	25 ft.	1800 ft.

Pistol style with a collapsing stock.

40mm	ROUND TYPES	BLA	BUR	FRA
M381	High Explosive	950*	2d6	d4-1
M381b	Armor Piercing	950*b	d10	d10-1
M381c	Anti-Personnel	50*	d10	See A
M433	HEDP Anti-Personnel	500*c	2d6	See B
M433d	Incendiary	150*	6d10	See C
M576E1	Anti-Personnel	25	d10	d20
M651E1	Tear Gas	25	d6	n/a
M651E2	Tear & Vomit Gas	25	d6	n/a
M651E3	BZ, BX, BN Agents	25	d6	n/a
M651E13	Any Liquid	25	d6	n/a
M773A11	AI Computer Visual Scanner			

These are generally the same type of round as their 1990's counterpart with lessened weight and better overall performance.

Night Signaling

M583	White Parachute Flare	(1-5 minutes)
M661	Green Parachute Flare	(1-5 minutes)
M662	Red Parachute Flare	(1-5 minutes)
M695	Orange Parachute Flare	(1-5 minutes)
M585	Star Shell White	(40 second burn time)
M663	Star Shell Red	(40 second burn time)
M664	Star Shell Green	(40 second burn time)

Daylight Signaling

M676	Smoke Canopy	Yellow
M679	Smoke Canopy	Green
M680	Smoke Canopy	White
M681	Smoke Canopy	Violet
M682	Smoke Canopy	Red

Special Stunbag 300 ft. range See Heavy Stun Pg. 122 & 137

* Standard use of blast and burn.

*b Blast is unidirectional. Reduce the blast damage value by 50% in other directions.

*c Combines * and b with no reduction of blast due to a shaped charge.

A See Fragmentation, High Yield Pg. 160-161

B See Fragmentation, Low Yield Pg. 160-161

C See Fragmentation, Phosphorus Pg. 160-161 & 107

MORTAR

(ICL MT 3)

ROF	1	AMO	40mm Variable		
ROL	A	CYC	n/a	MINIMUM	MAXIMUM
CAP	1	WTE	40.0	RANGE	RANGE
CIR	2397	MIS	01% ^f	150 ft.	3 mi.

A 40mm mortar. Use the 40mm shell tables with a damage or flare burn multiplier of x4. (*40mm MT Caseless*)

MORTAR ACCURACY

For missile fire use accuracy with normal modifiers and a d10 bonus for any special missiles with AI sensors aid targeting.

SMART WEAPONS & ROUNDS

As technology advanced, the accuracy and targeting for direct and indirect fire increased. Use of micro-computers created smart weapons or rounds that actively seek their targets. These AI weapons are standard issue.

Smart Weapons are weapons that tell the operator when to fire and reload. They often help acquire a target with special imaging. They can use smart rounds that correct for target movement or acquire secondary targets.

Smart Bombs, are operator or self-guided weapons launched from shoulder or vehicle. They seek their target and look for openings in a structure or a weak point. With airborne or parallel to ground targets, they may be able to turn around for a second try if they miss.

Smart Grenades can have their yeild damage dialed from low stun to high explosive. They detonate on close proximity of target or can serve as mines or booby traps.

ACCURACY BONUS FOR SMART WEAPONS

This is the GM's decision. Recommended bonus is a +2 to +10 to hit under best conditions.

MISSILE FIRE ACCURACY

For hitting a target with a launched missile, use Accuracy and any optional modifiers. Use a +d10 bonus for any special missiles with sensors and interactive tracking.

INDIRECT FIRE

For indirect fire, imagine a clock face over your target and roll a d12 for the direction of the shell fall. Index the Indirect Fire Distance chart. Moving targets always index from #3. For every three levels of specific type of launcher skill, add 1 to your shot number.

STILL TARGET	IMPACT DISTANCE
SHOT NUMBER	FROM TARGET
01 First Shot	3x d100
02 Second Shot	2x d100
03 Third Shot or Moving	d100
04 Fourth Shot	5x d10
05 Fifth Shot	3x d10
06 Sixth Shot	2x d10
07 Seventh Shot	d10

NB LIGHT ANTI-VEHICLE LAUNCHER

ROF 1	AMO HE AI Rocket		
ROL B	CYC n/a	MINIMUM	MAXIMUM
CAP 2	WTE 4.0	RANGE	RANGE
CIR 2425	MIS 1%	65 ft.	4250 ft.
BACKBLAST d10	BLAST 3400		BURN 4d10

INB MEDIUM ANTI-VEHICLE LAUNCHER

ROF 1	AMO HE AI Rocket		
ROL A	CYC n/a	MINIMUM	MAXIMUM
CAP 2	WTE 10.0	RANGE	RANGE
CIR 2445	MIS 1%	100 ft.	5700 ft.
BACKBLAST d10	BLAST 4600		BURN 6d10

NB HEAVY LAUNCHER

ROF 1	AMO HE AI Rocket		
ROL C	CYC n/a	MINIMUM	MAXIMUM
CAP 1	WTE 56.0	RANGE	RANGE
CIR 2445	MIS 1%	100 ft.	6500 ft.
BACKBLAST d10	BLAST 6500		BURN 10d10

FRENNER VEHICLE MOUNTED LAUNCHER

ROF 1	AMO HE Rocket		
ROL C	CYC n/a	MINIMUM	MAXIMUM
CAP 10	WTE 65.0	RANGE	RANGE
CIR 2407	MIS 1%	75 ft.	18500 ft.
BACKBLAST d10	BLAST 9400		BURN 15d10

FRENNER LAUNCHER, SURFACE TO AIR

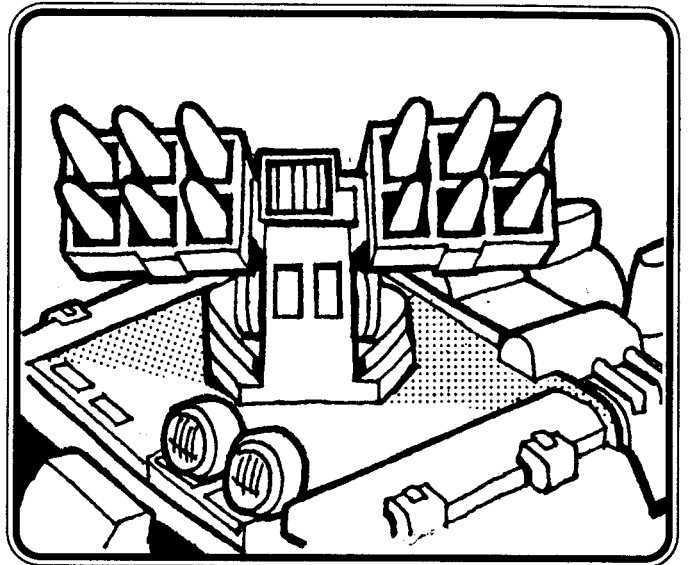
ROF 1	AMO HE Rocket		
ROL C	CYC n/a	MINIMUM	MAXIMUM
CAP 1	WTE 49.0	RANGE	RANGE
CIR 2422	MIS 1%	1000 ft.	24000 ft.
BACKBLAST d6	BLAST 4000		BURN 3d10

NOTES ON BLAST DAMAGE

Remember that any blast damage can be adjusted at the GM's decision. More advanced weapons always pack a harder punch and are smaller and lighter in size.

PRIMITIVE LAUNCHERS

Launchers will generally follow these guidelines with lesser damage and higher rates of misfire.



VEHICLE MISSILE POD

Damage from these missiles is indexed from the 40mm round table. A, B, & C types are all triggered by impact into the target.

REMEMBER

- 01 Index the damage of the 40mm equivalency of what you're using and multiply the damage accordingly. (See also Pg. 157 & 161)

MISSILE / ROCKET TYPE	NUMBER IN POD	DAMAGE MULTIPLIER
A 0.75 Inch Micro	10-40	x 0.25
B 1.75 Inch Mini-Missile	06-24	x 1 or 2
C 2.75 Inch Missile	02-08	x 2 to x 4
D 3.25 Inch Missile	02-04	x 4 to x 10

MISSILE RANGE

	MAXIMUM	FAILURE
A 0.75 Inch Micro	275 ft.	05%
B 1.75 Inch Mini-Missile	440 ft.	02%
C 2.75 Inch Missile	790 ft.	02%
D 3.25 Inch Missile	1400 ft.	02%

AI MISSILE PODS

The following group of 'Pod' missiles are a high-tech option. These have improved range and damage. Smart missile modifiers can also apply at the GM's decision. (See Also Pg. 157)

MISSILE / ROCKET TYPE	NUMBER IN POD	DAMAGE MULTIPLIER
A 0.75 Inch Mini-Missile	10-40	x 02.0
B 1.75 Inch Mini-Missile	06-24	x 04.0
C 2.75 Inch Missile	02-08	x 08.0
D 3.25 Inch Missile	02-04	x 10.0

AI MISSILE RANGE

	MAXIMUM	FAILURE
A 0.75 Inch Mini-Missile	500 ft.	02%
B 1.75 Inch Mini-Missile	900 ft.	01%
C 2.75 Inch Missile	2000 ft.	01%
D 3.25 Inch Missile	3400 ft.	01%

RANDOM WEAPONS GENERATION

These tables allow for the random creation of firearms that could be found on alien worlds.

The GM may generate a few dozen to have ready at any time. Results may be from outstanding to whimsical for random designs, though they could be surprisingly effective.

Start with a blank card or use the weapon information charts located at the bottom of a photocopied equipment sheet.

Higher Tech	
01-02	Handgun
03-04	Rifle
05-06	Shotgun
07-08	Assault Rifle
09	Laser
10	Energy

Lower Tech	
01-03	Handgun
04-07	Rifle
08-10	Shotgun

RATE OF FIRE / CYCLIC ACTION

Roll a d6 for the rate of fire and index over to find the weapon's cyclic action. Where there is no cyclic action, the weapon is semi-automatic or other type. Lasers have a d6 for their rate of maximum pulse.

	ROF	CYC		ROF	CYC
1	1	n/a*	4	1/3	20a
2	1/2	n/a*	5	1/3	30a
3	1/3	n/a*	6	1/3/6	40a

* Weapons with this designation may be of the following types:

	Type	Capacity
01	Bolt Action	d6 rounds
02	Manual Load	d10 rounds
03-06	Separate Box	3d10 rounds
07-08	Grip Box	4d4 rounds
09	Cylinder	2d4 rounds
10	Feed Tube	2d6 rounds

Weapons without the asterisk (*) designation may be of the following types:

	Type	Capacity
01-04	Separate Box	4d10 rounds
05-06	Grip Box	5d4 rounds
07-08	Drum	6d10 rounds
09	Belt Feed	Any Amount
10	Manual Load	2d10 rounds

WEIGHT OF WEAPON

Pistol Type	Weight	Shotgun Type	Weight
01-02	Light 00.50	01-02	Light 05.00
03-04	Medium 01.50	03-04	Medium 06.00
05-06	Heavy 03.00	05-06	Heavy 12.00

Rifle Type	Weight	Laser Type	Weight
01-02	Light 04.00	01-02	Light 02.00
03-04	Medium 07.00	03-04	Medium 03.00
05-06	Heavy 10.00	05-06	Heavy 04.00

AMO

Ammunition (AMO) is the choice of the GM, depending on the availability of the shells required and the technol-

ogy of manufacturers.

Lasers will use capacitor rounds or a battery in the form of a magazine or beltpack.

Accuracy

Type & Rating	PB	VS	SH	ME	LO	EX+
01 Handgun, Awful	+0	-1	-3	-5	-7	-10
Rifle, Awful	-4	-4	+0	-2	-4	-8
Shotgun, Awful	+0	-1	-2	-3	-5	-8
02 Handgun, Bad	+0	+0	-2	-3	-6	-8
Rifle, Bad	-3	-3	-2	-1	-3	-5
Shotgun, Bad	-1	+0	+0	-1	-5	-8
03 Handgun, Poor	+2	+1	+0	-1	-3	-6
Rifle, Poor	-3	-2	-1	+0	-1	-2
Shotgun, Poor	-1	+0	+1	+0	-2	-6
04 Handgun, Average	+3	+2	+2	+0	-2	-4
Rifle, Average	-2	-1	+0	+1	+1	+0
Shotgun, Average	-1	+0	+2	+0	-1	-4
05 Handgun, Good	+4	+3	+2	+1	+0	-2
Rifle, Good	-1	+1	+2	+1	+1	+2
Shotgun, Good	-1	+0	+2	+1	+0	-4
06 Handgun, Great	+4	+4	+3	+2	+0	-2
Rifle, Great	+0	+0	+1	+2	+3	+3
Shotgun, Great	-1	+1	+2	+2	+1	+0

Lasers have an average accuracy modifier that seldom varies.

	PB	VS	SH	ME	LO	EX
LASER	+1	+1	+4	+4	+4	+3

Weapon Damage

Type	Rating	PB	VS	SH	ME	LO	EX+
01 Handgun	Awful	EFFECTIVE	1d				EX+ 1d
Rifle	Awful	EFFECTIVE	2d				EX+ 1d
Shotgun	Awful	(Damage x.25 on Total)					
02 Handgun	Bad	EFFECTIVE	2d				EX+ 1d
Rifle	Bad	EFFECTIVE	3d				EX+ 1d
Shotgun	Bad	(Damage x.50 on Total)					
03 Handgun	Poor	EFFECTIVE	3d				EX+ 2d
Rifle	Poor	EFFECTIVE	4d				EX+ 2d
Shotgun	Poor	(Damage x.75 on Total)					
04 Handgun	Avr.	EFFECTIVE	4d				EX+ 2d
Rifle	Avr.	EFFECTIVE	5d				EX+ 2d
Shotgun	Avr.	(Damage x1.0 on Total)					
05 Handgun	Good	EFFECTIVE	5d				EX+ 2d
Rifle	Good	EFFECTIVE	6d				EX+ 3d
Shotgun	Good	(Damage x1.25 on Total)					
06 Handgun	Great	EFFECTIVE	6d				EX+ 3d
Rifle	Great	EFFECTIVE	8d				EX+ 4d
Shotgun	Great	(Damage x1.50 on Total)					

These damages can be modified by a player character's research and use of gunsmith skills or the purchase (GM approved) of better grades of ammunition.

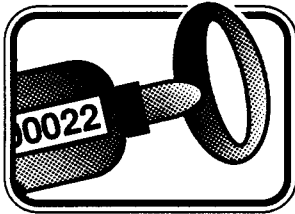
A shotgun's design changes pellet damage by the modification of final (WBD) Whole Body Damage.

It is always fun to add idiosyncrasies to weapons including: jamming, sticking, hard to find ammunition, sensitivity to specific environment, and unpopularity are but a few that we suggest.

EXPLOSIVES

Explosives are nondiscriminatory weapons that come in many variable strengths and types. Some general Terrestrial examples include:

	STYLE	FUSE	DAMAGE
TNT	BL	ABC	200 pts.
C-4	BL	BC	268 pts.
C-4 (Demo-Pack)	12 BL	BC	3216 pts.
C-6	BL	BC	560 pts.
C-6 (Demo-Pack)	10 BL	BC	5600 pts.
C-9	BL	BC	1000 pts.
C-9 (Demo Pack)	10 BL	BC	10000 pts.
C-12	BL	B	1500 pts.
C-12 (Demo Pack)	10 BL	B	15000 pts.
ICL Dynamite	ST	ABC	184 pts.
Dynamite Early	ST/CY	ABC	122 pts.
Commercial	ST/CY	ABC	166 pts.
Black Powder	PD	ABC	110 pts.
Nitro	DI	ABC	220 pts.
Fuse (waterproof)	Cord	—	1 per inch. 4 per inch.



PACKING STYLE KEY

- BL A small, rectangular block.
- ST Stick. 12" long, 1" wide.
- DI A 2 inch by .25 inch disk.
- PD Packed powder.
- CY Soft Cylinder

DETONATOR FIRING

Explosive detonators may be mechanical or electrical. Special mechanical or electrical detonators can be timed up to 30 hours or fired immediately at the player's or GM's choice.

FIRING

	F	B	C	H	E	M	I
F= Fuse	y	y	y	y	n	y	n
B= Blasting Cap	y	y	y	y	y	y	y
C= Primer Cord	n	y	y	n	y	n	y

DOES IT FIRE?
Y = Yes N = No

CHANCE OF IGNITION

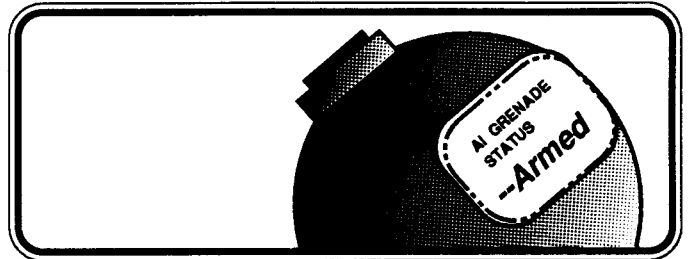
This is an index of primitive black powder and the chance of its ignition in weapons as indexed by dampness.

ARCHAIC POWDERS	WET	DMP	NORM
A Serpentine Powder	0%	35%	80%
B Corned-Black Powder	0%	35%	80%

BLACK POWDER	WET	DMP	NORM	TYPE
C1 Cannon Powder	05%	45%	95%	—
C2 Large-Bore Weapons	04%	50%	98%	Fg
C3 Medium-Bore	02%	45%	98%	FFg
C4 Small-Bore	01%	35%	95%	FFFg
C5 Priming Powder	0%	30%	95%	FFFFg
D Modern Smokeless	20%	90%	99%	—

WEAPONS IGNITION

	WET	DAMP	NORM
A Burning Stick	02%	30%	75%
B Hot Wire	04%	35%	85%
C Slow-Burning Match	01%	30%	80%
D Slow-Burning Fuse	05%	45%	85%
E Wheellock	10%	50%	85%
F Flintlock	10%	50%	85%
G Percussion Cap	20%	58%	95%
H Rim-Fire Cartridge	75%	89%	95%
I Pin-Fire Cartridge	65%	85%	90%
J Center-Fire Cartridge	85%	95%	99%
K Caseless	98%	99%	99%
L Modern Percussion Cap	90%	97%	99%



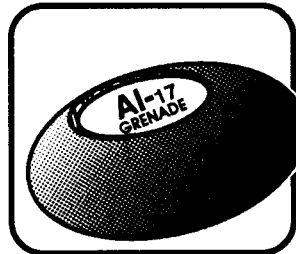
GRENADES

Grenades are as variable as the races who use them. The above collection is a basic example of what a grenade may be, from manual fused models to guidance corrected computerized models.

GRENADE TYPE	BLAST	BURN
Primitive Explosive	100	d10 x2
High Explosive	200	d10
Smoke (see accuracy modifiers)	d6	d6
Incendiary (80 foot circle)	50	6d10
Illumination (as a flare)	2d6	d10
Phosphorus (see burn damage)	65	Varied
Fragmentation (low-yield)	110	2d6
Fragmentation (high-yield)	140	3d6
Stun	25	d6
Gas	05	d6
Energy	Varied	Varied

FRAGMENTATION

Many grenades are designed to shatter into fragments and cause damage. From the point of detonation these fragments travel at the speed of the blast and are subject to distance modifiers. Divide the fragment's penetration (blast velocity) by the number of feet it has traveled from the point of detonation. Treat these fragments as projectile hits and use the detailed body tables. (See also Pg. 126)



ICL MK 17
Variable Yield AI
Explosive System

Weight: 0.55 Lb
Diameter: 1.5 Inches
Yield: 50-450 Pts Blast

Ben, Bells, & Quag

While searching through a long-unused storage locker, Quag finds a green sphere with a ring shaped pin at the top. Without a second thought he takes the object to Bells for disposal.

GRENADE	DISTANCE IN FEET						
	40	30	25	20	15	10	05
A LOW YIELD	0	1	d2	d4	d4	d6	d8
B HIGH YIELD	1	d2	d4	d6	d8	d10	d20
C PHOSPHORUS	0	0	1	d2	d4	d4	d6

REMEMBER

- 01 Grenades explode with damage from blast and high velocity fragments that travel with penetration equal to the force of the blast divided by the distance of the target in feet.
- 02 Smoke, chemical, and gas grenades create a dense cloud 50 feet in diameter that travels with the direction and speed of the wind.

GAS GRENADES

Gas grenades are many in form and function. The following are a collection of their possible contents and mixtures.

DELAY TO GAS EFFECT (DE)

The time until the full effect of the agent takes place.

DURATION (DU)

The duration of the effects of the agent.

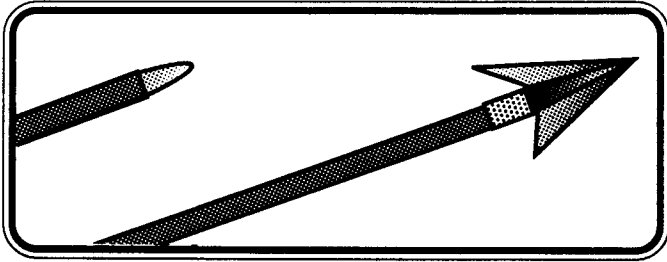
CHANCE OF DEATH (DX)

The chance of an allergic or highly toxic reaction to the agent. Treat as a d10 poison. This is a one time roll.

- BZ **HALLUCINOGENIC TRANQUILIZER**
DE: d4 min. DU: d4+4 hrs. DX: 05%
- BX **HALLUCINOGENIC IMMOBILIZER**
DE: 1 min. DU: 3d8 hrs. DX: 08%
- BN **OPTIC DISRUPTIVE**
DE: 1 min. DU: d6+9 hrs. DX: 01%
- CN **TEAR GAS**
DE: Contact DU: d6 hrs. DX: 01%
- DM **VOMIT GAS**
DE: Contact DU: d4 hrs. DX: 01%
- SL **SLEEP GAS**
DE: 1 min. DU: d6+6 hrs. DX: 01%
- NG **NERVE GAS**
DE: 1 min. DU: -- DX: 95%
- SM **SMOKE**
DU: 2 min. Creates a dense cloud of smoke.
- PO **POISON GAS**
(See Toxins Pg.118)
- DR **DRUG SPECIFIC**
(A specific or special drug)
- PS **PSIONIC SPECIFIC**
(A PSI deading gas)
- R- **PREFIX CODE R**
(Race specific to alien type)
- 24- **PREFIX NUMBER (VARIED)**
(Time in minutes of persistance of gas)

BOW WEAPONS

EARLY BOW	PB	VS	SH	ME	LO	EX
Wood	+0	+1	+4	+3	+0	-3
ARROW TYPE: AC	EFFECTIVE				EX+	
BREAK: 06%a			3d		1d	
LONG BOW	PB	VS	SH	ME	LO	EX
Wood	+0	+1	+4	+4	+2	+0
ARROW TYPE: A-D2	EFFECTIVE				EX+	
BREAK: 03%a			4d		2d	
MODERN BOW	PB	VS	SH	ME	LO	EX
Fiberglass/Alloy	+0	+1	+4	+3	+1	+0
ARROW TYPE: E1-5	EFFECTIVE				EX+	
BREAK: 02%a			4d		2d	
COMPOUND BOW	PB	VS	SH	ME	LO	EX
Alloy / Plastic	+0	+1	+5	+5	+3	+1
ARROW TYPE: E1-5	EFFECTIVE				EX+	
BREAK: 01%b			4d		2d	
ARBELEST	PB	VS	SH	ME	LO	EX
Wood	-1	+1	+4	+3	-4	+0
BOLT TYPE: A-D3	EFFECTIVE				EX+	
BREAK: 07%b			4d		1d	
CROSS BOW	PB	VS	SH	ME	LO	EX
Wood/Iron	-1	+1	+4	+3	+2	+1
BOLT TYPE: E1-5	EFFECTIVE				EX+	
BREAK: 01%b			5d		2d	
PISTOL CROSSBOW	PB	VS	SH	ME	LO	EX
Steel/Fiberglass	+4	+3	+2	+0	-4	-8
BOLT TYPE: E1-5	EFFECTIVE				EX+	
BREAK: 03%b			3d		1d	
WRIST BOW	PB	VS	SH	ME	LO	EX
Steel/Plastic	+3	+2	+1	+0	-8	-12
BOLT TYPE: E1-5	EFFECTIVE				EX+	
BREAK: 05%b			2d		1d	
PAEBAK BOW	PB	VS	SH	ME	LO	EX
Wood	+0	+2	+4	+3	+2	+1
BOLT TYPE: A-E	EFFECTIVE				EX+	
BREAK: 01%a			4d		2d	
VAC CROSS BOW	PB	VS	SH	ME	LO	EX
Aluminum/Plastic	+6	-2	+2	+4	+2	+0
BOLT TYPE: F1-4	EFFECTIVE				EX+	
BREAK: 10%b			4d		6d	
IICL BOW	PB	VS	SH	ME	LO	EX
Alloy	+0	+3	+5	+4	+2	+1
BOLT TYPE: A-E	EFFECTIVE				EX+	
BREAK: 01%a			3d		2d	
BOR'CHA CROSS BOW	PB	VS	SH	ME	LO	EX
Aluminum/Plastic	+0	-2	+2	+4	+2	+0
BOLT TYPE: F1-4	EFFECTIVE				EX+	
BREAK: 10%b			6d		4d	
TUGAN HARD BOW	PB	VS	SH	ME	LO	EX
Aluminum/Plastic	+0	-2	+2	+6	+4	+0
BOLT TYPE: F1-4	EFFECTIVE				EX+	
BREAK: 05%b			7d		5d	



ARROW TYPES

		BREAKAGE CHANCE	DAMAGE DICE
WOOD TIP			
A	Blunt Wood	30%	d4
A2	Pointed Wood	40%	d4 +1
PRIMITIVE ARROWHEAD			
C	Stone, Bone, Shell	55%	d6
EARLY METAL			
D	Bronze	40%	d6
D2	Iron	20%	d6
D3	Steel	10%	d6
MODERN			
E1	Target	03%	d4 +1
E2	Broadhead	01%	d6
E3	Tri-Blade	02%	d6 +1
E4	Four-Blade	03%	d6 +2
E5	Fishing	03%	d4 +2

HIGH TECH SPECIALS

F1	Rocket Assist	05%	d6 +4
F2	Explosive	99%	d4 (Blast 3d6)
F3	Incendiary	95%	d6 (Burn 2d4)
F4	Stun Blast	25%	(See Pg. 137)
F5	Tagging	95%	(Paint Splash)
F6	Gas	95%	(See Pg. 161)
F7	Electric	10%	d4 -1
Arrow creates a heavy stun effect if it penetrates skin on human-sized targets.			
F8	Smoke Trail	98%	d4 Burn
Burns to leave a ribbon of smoke behind the arrow.			
F9	Flare	98%	d4 Burn
Bursts like a signal flare and ignites for 6 seconds.			
F10	Chemical	95%	d6
Bursts and sprays shaft's contents.			
F11	Hypodermic	55%	d4 -1
Injects drug or liquid.			
F12	AI Bug	25%	d4 -1
A micro-mini bug resides in the arrow shaft. Range on this device is 100 miles.			
F13	Energy	75%	Varied Field
Used to create a momentary field effect.			
F14	Smoke Bomb	95%	d6 Burn
Bursts to cover a 400 foot diameter area of white or colored smoke.			
F15	Micro Line	10%	n/a
Trails a 750 Lb test micro line.			

BOW BREAKAGE

These are the possible results for bow breakage.

BREAK TYPE A		BREAK TYPE B	
01-07	String Snaps	01-07	String Snaps
08-09	Bow Cracks	08-09	Mechanical
10	Bow Breaks	10	Bow Breaks

WEAPONS USE NOTES

Use a little logic when dealing with aliens, police, and the carrying of weapons.

The brandishing of weapons for any threatening purposes, other than hunting or self defense, is generally an offense no matter where you go. Using a weapon in a threatening manner can get the user a stiff fine or a term in jail on most worlds. While carrying a weapon in a hostile area is near universal, using one may open a can of worms for the owner. Pulling out a weapon in the presence of police is a good way to get shot.

GENERAL CIVILIAN FIREARMS

The average small arm of the 25th Century is the .22 used for hunting small game or defense. Smaller shotguns and hunting rifles are also common and popular.

As you look at those folks who don't respect the law, you find a heavier range of weapon. Standard non-energy home defense examples include:

RIFLE	Semi-Auto			'Colonial 10/22'					
ROF	1or3	AMO	CDEF	PB	VS	SH	ME	LO	EX
ROL	A	CYC	n/a	-1	+1	+3	+1	-2	-9
CAP	40+	WTE	4.0	EFFECTIVE			EX+		
CIR	2290	MIS	1% ^f	3d			1d		
HSM	--	KDM	--	SPC (ojmn)					

The general example of a small rifle. Capacity can be adapted to 10/25/30/50/200/550 shots (*.22 Caseless*)

REVOLVER

				'Saturday Night Special'					
ROF	1or2	AMO	CDE	PB	VS	SH	ME	LO	EX
ROL	Ax6	CYC	n/a	+3	+2	+1	-03	-05	-09
CAP	6	WTE	0.5	EFFECTIVE			EX+		
CIR	2400	MIS	1% ^d	3d			1d		
HSM	--	KDM	--	SPC (acip)					

The general example of a small pistol. Variations may have such weapons having as many as 30 rounds. (*.22 Archaic*)

TRUE ALIEN WEAPONS

For the pure fun of it, use the Random Weapon Generator on page 159. This table gives you strange but functional weapons. Other designs are the option of the GM's imagination.

"It's a metal stick and it looks like a cannon is mounted on one end. While I've never seen a fuse fired hand cannon filled with gravel, I can assure you the little creature in the copper hat is trying to strike a fuse with a piece of steel. Just remember it's now pointed in our general direction!"

*Dr Isaac Goldberg
Deep Space Contact
Mergwat VI Protectorate*



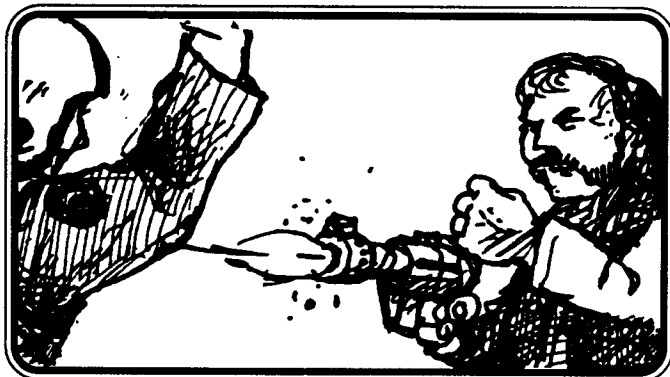
FAST KILL

In fast action situations, the complete generation of protagonists is a waste of the GM's time. Other than Accuracy and Agility, disposable NPCs should be generated in batch and kept on file.

The following charts speed disposal of NPC characters and animals in a simple fashion. If the GM wishes to add a little realism and uncertainty to the game, roll on the options table when a Fast Kill is attempted.

REMEMBER

- 01 Every projectile striking a target per action adds a +1 to the result total.
- 02 Modifiers do not affect a roll on the options table.
- 03 In some cases an option will not work for a particular situation.
- 04 This table may also be used for any unusual paranormal or alien life. It is recommended this table not be used for player character wounds.



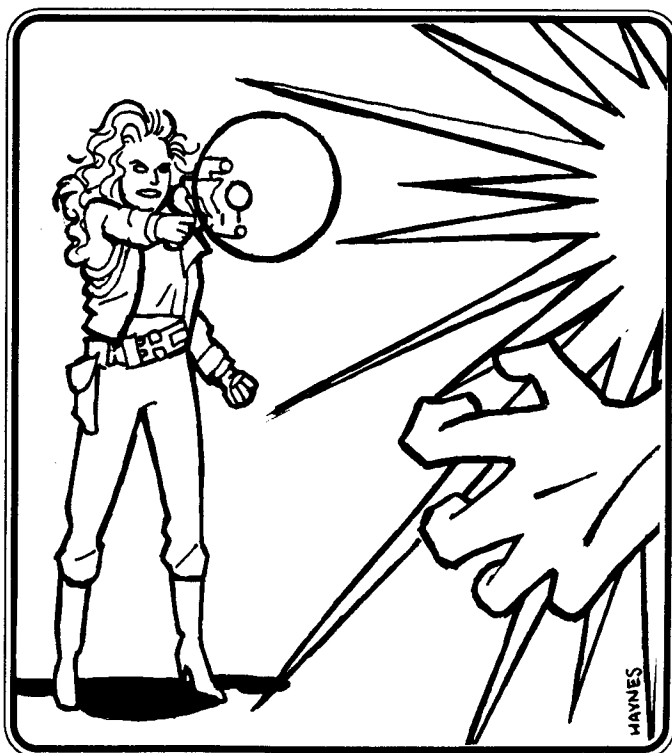
HUMAN FAST KILL RESULT

- 01 GRAZE
Victim is grazed.
- 02 GRAZE/STUN
Victim is grazed and loses next action.
- 03 MINOR WOUND
Minor wound lightly stuns victim.
- 04 MINOR WOUND / STUN
Wound stuns victim for d6 minutes.
- 05 MINOR WOUND / HEAVY STUN
Wound stuns victim for d6+10 minutes.
- 06 SERIOUS WOUND
Serious wound, NPC falls unconscious after his or her next action.
- 07 CRITICAL WOUND
Critical wound, NPC falls unconscious just after one more actions, dies in 6d10 minutes.
- 08 CRITICAL WOUND
Critical wound, NPC falls unconscious immediately, dies in 2d10 minutes.
- 09 CRITICAL WOUND
Critical wound, NPC falls unconscious immediately and dies in d4 minutes without aid.
- 10 DEATH
Victim falls unconscious, dies.
- 11+ INSTANT DEATH
Victim dead before he hits the ground.

HUMANOID FAST KILL OPTIONS

As a GM option, add a d10 roll to the above weapons fire result to surprise the players. Use common sense when you use these modifiers.

- 01 VICTIM SPUN
Victim is spun by shot. Must take d4 actions to recover.
- 02 ARMOR ABSORPTION
Victim's armor reduces first table roll by d4 on the initial d10 roll.
- 03 ARMOR ABSORPTION
Victim's armor reduces first table roll by d4 +2 on the initial d10 roll.
- 04 FUMBLE
Victim fumbles next action.
- 05 KNOCKBACK
Victim is knocked d4 feet backwards by shot. Takes at least d6 actions to recover.
- 06 PROJECTILE DEFLECTION / KNOCKBACK
Obstruction or possession deflects the shot. Knocks victim backwards as #5.
- 07 SHOCK
Fear and shock reduces the victim's Accuracy by d6 on the next shot if the next action is weapons fire.
- 08 COMPLETE PROJECTILE DEFLECTION
Obstruction or possession deflects the shot totally. If a burst of shots are fired, d100% are deflected. No action penalty to the NPC.
- 09 WEAPON JAM
The NPC's weapon jams or misfunctions on the next or last action.
- 10 PLAYING 'POSSUM
If NPC is alive and conscious after being hit, he or she will attempt to feign death, (play 'possum) until he or she has an advantage.





ANIMAL FAST KILL

Use this table in the same way as the first set of tables with these results:

- 01 GRAZED
Victim is grazed.
- 02 GRAZED / STUN
Victim is grazed and loses next action.
- 03 MINOR WOUND
Minor wound lightly stuns victim.
- 04 MINOR WOUND / STUN
Wound stuns victim for d6 minutes.
- 05 MINOR WOUND / HEAVY STUN
Wound stuns victim for d6 +4 minutes.
- 06 SERIOUS WOUND
Serious wound, victim falls unconscious after its next action.
- 07 CRITICAL WOUND
Critical wound, victim falls unconscious after its next action and will die in d10 minutes.
- 08 CRITICAL WOUND
Critical wound, victim falls unconscious after its next action and dies in d6 minutes.
- 09 CRITICAL WOUND
Victim falls unconscious, dies d4 minutes.
- 10 DEATH
Victim falls unconscious, dies.
- 11+ INSTANT DEATH
Victim dropped in tracks.

ANIMAL FAST KILL OPTIONS

As a GM option, add a d10 roll to the above weapons fire result to surprise the players. Use common sense when you use these modifiers.

- 01 RUNS
Victim flees in terror if alive.
- 02 RUNS AT ATTACKER
Victim flees in terror in direction of attacker if still alive.
- 03 ARMOR ABSORPTION
Deflection reduces the attacker's primary dice result by a d4.
- 04 PLAYS 'POSSUM
The victim will feign death until attacker leaves or death occurs.
- 05 PLAYS 'POSSUM / ATTACKS
Victim will feign death and attempt to attack the attacker at the first opportunity.
- 06 VIOLENT REACTION
Victim begins to thrash, roll, and die violently.
- 07 ATTRACTS SCAVENGERS
The kill attracts scavengers, if any.
- 08 ATTRACTS PREDATORS
The kill attracts predators, if any.
- 09 ATTRACTS FRIENDS
This kill attracts more of the victim's type, if any.
- 10 PANIC RUN
Victim panics, runs off to die.

REMEMBER

- 01 With either Human or Animal Fast Kill, each additional round that hits the victim adds a +1 to the d10 die roll. With the result of 7, a Critical Wound becomes an 11, (Instant Death) if three more rounds hit the target.

TEMPERAMENT IN ANIMALS

Most animals will avoid contact with man and the supernatural whenever possible. Only when very sick, cornered, angry, wounded, or protecting young will they attack with a berserk fury. See the TEMPERAMENT charts on Pg. 165.

DEXTERITY IN ANIMALS

An animal's Dexterity and Agility is the choice of the GM. Averages may be:

	DEXTERITY	AGILITY
VERY SLOW	d6 +04	d6 +04
SLOW	d6 +06	d6 +06
MEDIUM	d6 +08	d6 +08
FAST	d6 +10	d6 +10
VERY FAST	d6 +12	d6 +12
LIGHTNING FAST	d6 +14	d6 +14

BODY CHARTS FOR ANIMALS

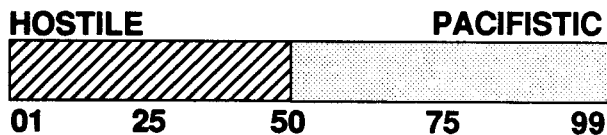
The detailed body tables may be used for damage to quadrupeds with minor structural modifications.

Animals may have different skin armor ratings, bone values and tissue thicknesses. Body areas may generally have the same function though the GM may wish to change death shock percentages and structure. (See Also Pg. 135-136)

TEMPERAMENT

All intelligent life and animals have a temperament rating, an index of their reaction to stress or the unknown. This rating generally shows how readily the individual or species is provoked.

The T or temperament scale has a set base of 50 for somewhere between hostile (low) and pacifistic (high). Humans are generally at 50 except on Mondays when they drop to 40.



MODIFIERS TO PROVOKE	TEMPER ADJUSTMENT
01 Trying to be Peaceful	+05
02 Generally Peaceful	+02
03 Neutral	n/a
04 Neutral, Hostile	-10
05 Hostile	-15
06 Trying to Provoke	-20
07 Taunting to Provoke	-25
08 Physical Assault	-30
09 Continued Physical Assault	-35
10 Major Physical Assault	-40

ORIGINAL TEMPER	PROVOCATION TO ACTION	ORIGINAL TEMPER	PROVOCATION TO ACTION
01-05	98%	51-55	40%
06-10	96%	56-60	30%
11-15	90%	61-65	25%
16-20	85%	66-70	20%
21-25	80%	71-80	15%
26-30	75%	81-85	10%
31-35	70%	86-90	05%
36-40	65%	91-95	02%
41-45	60%	96-00	n/a
46-50	50%		

RESULTS OF PROVOCATION

Now that you've provoked somebody or something, index the general intelligence and T Scale to determine the type of action that will result.

INTELLIGENT HOSTILE

- 01-50 Stop Attack by Force
- 51-75 Attack Next Action
- 76-85 Attack in d4 Actions
- 86-90 Attack if Provoked Again
- 91-98 Reason d4 Actions, Attack
- 99-00 Reason d4 +4 Actions, Attack

INTELLIGENT PACIFISTIC

- 01-50 Does Not Fight Back
- 51-75 Continue to Reason
- 76-85 Flee Hostility
- 86-90 Warn, Then Use Force
- 91-00 Stop Hostility by Force

MINIMALLY INTELLIGENT HOSTILE

- 01-75 Attack Immediately
- 76-95 Wait d4 Actions, Attack
- 96-00 Attack or Run

MINIMALLY INTELLIGENT PACIFISTIC

- 01-75 Run
- 76-95 Wait d4 Actions, Run
- 96-00 Wait d4 +4 Actions, Run

NON-INTELLIGENT HOSTILE

- 01-98 Attack
- 99-00 Wander Off Mindlessly

NON-INTELLIGENT PACIFISTIC

- 01-98 Look Mindless
- 99-00 Wander Off

CHARISMA

Everybody is assumed to have a little Charisma. This statistic is a combination of the character's looks, personal magnetism, speaking ability, and intelligence. Use this score when dealing with unknown or hostile NPCs. Modify your final score by optional or listed modifiers.

NPC HOSTILITY

The GM usually rates an NPC character's personality. Being friendly or hostile does not necessarily constitute a total direction of attitude. Even in an extremely friendly situation, a hindrance may occur or become a serious obstacle. Check for optional modifiers and possible serious hindrances.

HOSTILITY MODIFIERS

01 Bribe with Something Valuable	+20%
02 Bribe with Small Sum	+10%
03 Persistent	-10%
04 Minor Violence	-15%
05 Major Violence	-20%
06 Blackmail	Variable
07 Threaten Family	Variable
08 Threaten Financial Security	Variable
09 Convincing Argument	+05
10 Helping Hostile Individual	+10

HINDRANCES

- 01 Wrong Information
- 02 Bad Tempered Individual
- 03 Individual just wants to be helpful to the group even when no beneficial information is available
- 04 Wants something in return for information
- 05 Individual has a good sense of humor
- 06 Apathy
- 07 Extreme Apathy
- 08 An honest mistake with information
- 09 Bureaucracy Sets In
- 10 Informant is Pathological Liar

OTHER HINDRANCES

The GM is encouraged to create as many hindrances as he or she sees fit for general use.

HOW NPCs DEAL WITH YOUR CHARISMA

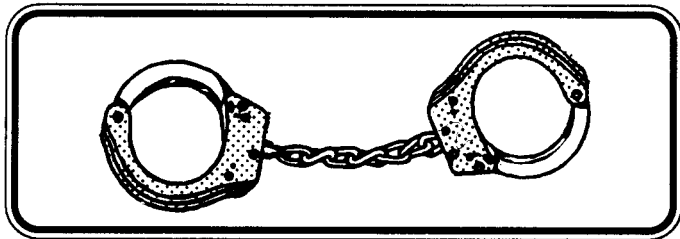
This gives you a modifier for dealing with the general mood of the NPC. Index your Charisma, on the next chart, for modifiers to use.

CHARISMA STATISTIC	MODIFIER TO AID	MODIFIER TO HINDER
01	-08	+05
02-04	-06	+04
05-07	-02	+02
08-10	n/a	n/a
11-13	+02	-02
14-16	+05	-04
17-18	+06	-06
19	+08	-08
20	+10	-10

FINAL RESULT

Total your modifiers and add them to the roll of a d100. The result is indexed below to give the character's actual chance to aid or the chance that a hindrance will happen.

PERSONALITY	AID	HINDER
01-12 Outright Hostile	05%	95%
13-25 Hostile	20%	90%
26-45 Semi-Hostile	40%	80%
46-70 Neutral	50%	50%
71-85 Almost Friendly	80%	40%
86-90 Friendly	90%	20%
91-98 Very Friendly	95%	10%
99-00 Completely Friendly	98%	05%



LEGALITY & WORLDS

As you and your crew travel the starways in the search of high adventure remember one simple fact of life. You are legally responsible for the actions you commit.

This means any criminal actions can be tried by local authorities. There is no magic that can save you from jail and remember your lawyer is probably a few dimensions away.

Only your team and common sense can help you.

Because laws and regulations differ across political, geographical, and interstellar boundaries, a general set of law and response tables is impossible. The following is a set of basic rules designed to simulate a court system.

REMEMBER

- 01 Determine the severity of the offense.
- 02 Total your potential legal modifiers.
- 03 Add the modifiers to a d100 roll and index the outcome of the type of dispute.
- 04 Pay fines and/or serve time.

SEVERITY OF CRIME

	MODIFIER
01 CHARGES DEFERRED	+20
Defers charges to general claims and fines. No court case.	
02 NUISANCE CASE	+15
Judge wonders why this was brought to court.	
03 VERY MINOR OFFENSE	+10
04 MINOR CASE	+05
05 LESS THAN SERIOUS OFFENSE	n/a
06 SERIOUS OFFENSE	-05
07 VERY SERIOUS OFFENSE	-20
08 SEVERE OFFENSE	-30
09 VERY SEVERE OFFENSE	-40
10 HEINOUS OFFENSE	-50

JUDGE

JUDGE	MODIFIER
01 Bored	-02
02 Disinterested	-01
03 Routine	n/a
04 Interested	+01
05 High Interest	+02
06 Fascinated	+03

JURY

JURY	MODIFIER
01 Bored	-02
02 Disinterested	-01
03 Routine	n/a
04 Interested	+01
05 High Interest	+02
06 Fascinated	+03

LEGAL AID

LEGAL AID	DEFENSE LAWYER	PROSECUTION LAWYER
01 Incompetent	-03	+03
02 Not Very Competent	-02	+02
03 Somewhat Competent	-01	+01
04 Mostly Competent	+01	-01
05 Competent	+02	-02
06 Extremely Competent	+03	-03

WITNESSES

WITNESSES	DEFENSE WITNESS	PROSECUTION WITNESS
01 Incompetent	-03	+03
02 Not Very Competent	-02	+02
03 Somewhat Competent	-01	+01
04 Mostly Competent	+01	-01
05 Competent	+02	-02
06 Extremely Competent	+03	-03

POLITICS

Roll a d6 to find if politics plays a positive or negative factor in the case. Roll a second time to find the modifier.

	RESULT 01-03 POSITIVE MOD	RESULT 04-06 NEGATIVE MOD
01 No Involvement	n/a	n/a
02 Little Involvement	+01	-01
03 Some Involvement	+02	-02
04 Involvement	+03	-03
05 High Involvement	+04	-04
06 Political Intrigue	+05	-05

EVIDENCE

	DEFENSE	PROSECUTION
01 None	+10	+10
02 Very Little	+05	+05
03 Some Evidence	+01	+01
04 Large Amount	-05	-05
05 Serious Evidence	-10	-10
06 Damaging Evidence	-15	-15

BRIBES

	DEFEN	PROSE	JUDGE
01 Bribe Accepted	+10	-10	+10
02 Bribe Accepted	+05	-05	+05
03 Bribe Accepted	+03	-02	+02
04 Bribe Rejected	+01	+01	n/a
05 Bribe Rejected	-02	+05	-05
06 Bribe Rejected	-05	+10	-10

OPTIONAL CIRCUMSTANCES

01 Popular Condemnation	-05
02 Difficult Case	-10
03 Language Barrier	-05
04 Being Made an Example	-10
05 Kangaroo Court	-25
06 Government Wants Conviction	-50
07 Setting a Precedent	+02
08 Popular Support	+05
09 Unexpected Aid	+05
10 Sloppy Trial Procedure	+25

LEGAL OUTCOME

The final table to roll on splits into two possible choices for legal action.

LEGAL RULINGS, PROPERTY SETTLEMENTS

01-10	Highest Unfavorable Ruling
11-25	Near Highest Unfavorable Ruling
26-50	Highly Unfavorable Ruling
51-75	Unfavorable But Fair Ruling
76-85	Favorable Ruling
86-90	Very Favorable Ruling
91-95	Highest Favorable Ruling
96-00	Case Thrown Out of Court

CRIMINAL DISPUTES

	FINE MODIFIER
01-10	Highest Punishment +100%
11-25	Near Highest Punishment +75%
26-50	Harsh Punishment +50%
51-75	Standard Punishment n/a
76-85	Less Than Normal Punishment -25%
86-90	Very Light Punishment -50%
91-95	Lightest Possible Punishment -75%
96-00	Case Thrown Out of Court n/a

FINES

The fines levied for a crime and court costs are entirely the decision of the GM. The same goes for time spent in court or jail before trial. The average fines for Vehicle Laws are a quarter of a week's wages.

Criminal charges and destruction of property can range from the equivalency of a few hundred to a few thousand dollars.

Harsh criminal charges may result in jail and fines of the equivalency of tens of thousands of dollars it as well as property seizure and jail sentences. Parole from harsh crimes often takes a year or two.

SEVERITY OF CRIME

This section deals with the severity of crime, the seriousness of how the court will treat the offense.

"Honest, it was only a pack of Cigarettes! You can't arrest me for smokingyou can?"

Dunbar Adams

SERIOUS CRIME

SERIOUS CRIME	SEVERITY
Manslaughter	10
Manslaughter (2nd Degree)	09
Manslaughter (3rd Degree)	08
Negligent Homicide	03-07
Conspiracy (Murder)	03-07
Assault with Intent to Kill	08
Assault	07
Assault (2nd Degree)	06
Assault (3rd Degree)	05
Brawling	04
Aggravated Assault	03
Reckless Endangerment of Life	04-06
Kidnaping	09
Kidnaping (2nd Degree)	08
Coercion (Forcing Under Threat)	07
Sex Related	04-09

DESTRUCTION OF PROPERTY

Arson	08
Arson (2nd Degree)	07
Arson (3rd Degree)	06
Unlawful Demolition	04-10
Vandalism	06-07
Vandalism (2nd Degree)	04-05

CIVIL DISTURBANCE

Riot	08
Inciting to Riot	06
Harassment	03-06
Unlawful Assembly	02-04
Disorderly	02
Public Intoxication	02-03
Intoxicated & Disorderly	03
Trespass	01-05
Tampering	01-05
Mischief	01-03
Criminal Trespass	04-08
Criminal Tampering	05-08
Criminal Mischief	04-07



THEFT	SEVERITY
Burglary	06
Burglary (2nd Degree)	06
Robbery	07
Armed Robbery	08
Larceny (Minor)	02-03
Larceny	04-05
Grand Larceny	06-07
Unlawful Use of Credit Card	05
Possession of Stolen Property	05
Possession (2nd Degree)	03-04
Forgery	08
Forgery (2nd Degree)	06-07
Forgery (3rd Degree)	04-05
BRIBERY	
Bribery	07-10
Bribery (2nd Degree)	05-06
ARREST RELATED	
Resisting Arrest	02-03
Hindering Prosecution	03-04
Obstructing Official Agency	03-04
Harboring a Fugitive	03-04
DRUGS	
Possession of a Controlled Substance	07-09
Possession of Substance (2nd Degree)	06-08
Possession of Substance (3rd Degree)	05-06
Possession of Substance (4th Degree)	04-05
Possession of Substance (5th Degree)	03-04
Sale of a Controlled Substance	09-10
Sale of Controlled Substance (2nd Degree)	08-09
Sale of Controlled Substance (3rd Degree)	05-07
WEAPONS	
Unregistered Handgun (Variable by Area)	04-05
Explosives	05-07
Military Explosives	06-08
Machine Weapons (Without License)	04-07
Military Gasses	03-06
Exotic Weapons	02-07
Knives	02-04
Radioactive Material	02
OTHER	
Racism	01-03
Immigration / Customs Law Violation	02-04
Tax Evasion	02-09
Computer Tampering / Hacking	02-06
CIVIL INFRACTIONS	
Traffic / Motor Vehicle	01-04
Property Ordinance	01-03
Social Ordinance	01-03
Health Ordinance	01-03

PRISON CONDITIONS

01-10	HELLHOLE These places are the lowest place in society. If the prisoners don't get you the guards will. You fight and work and hope to survive your sentence.
11-50	HARSH PRISON These are a step up above hellholes where an individual works off his time and attempts to survive. Whatever his or her time, the system is extracting whatever it can, in work, while the victim suffers.
51-75	MODERATE PRISON For some societies a prison is a place to put criminals so they may think on the crimes they have committed. These are a comfortable place with some work to do, but otherwise ineffective to rehabilitate.
76-85	EASY PRISON This prison is another time waster. While easy and comfortable, it has few redeeming features to help rehabilitate the criminal.
86-90	EDUCATIONAL/TRAINING FACILITY This Philosophy of Prison reeducates the prisoner to be more useful in society. It teaches good social habits and generally improves where an education is lacking.
91-95	CONDITIONING FACILITY This facility uses mental conditioning to make sure the prisoner will not commit more crimes. Whether by physical, chemical, or psychological means the prisoner's will to commit a crime is impaired.
96-00	EXTREMES Extreme prisons use harsh chemical conditioning, high-tech implants, or mind wipes / blocks to create a person who does not commit crime. In lower or primitive societies this may become severe forms of torture or a simple execution to eliminate the problem.

OTHER PRISONERS & GUARDS

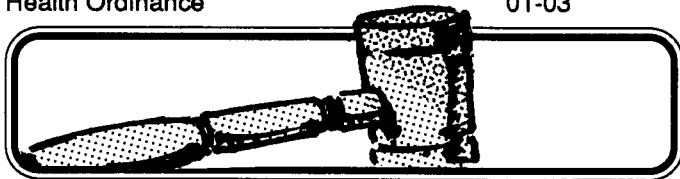
	TEMPER
01-10	Inhumane and Sadistic 10 or Less
11-50	Harsh and Cruel 20 or Less
51-75	Hard 30-40
76-85	Average 40-50
86-90	Reasonable 50-60
91-98	Friendly 60
99-00	Very Friendly 70

CHANCE TO ESCAPE OPPORTUNITIES

	CHANCE PER MONTH
01-10	Forget it 05% or Less
11-50	Real Rare 10% or Less
51-75	Rare 15% or Less
76-85	Average 20% or Less
86-90	Occasionally 25% or Less
91-98	Common 35% or Less
99-00	Very Common 49% or Less

ESCAPE

The chance to escape doesn't mean you escape, but rather you see an opportunity or a possible method.





DAZE OF WINE AND ROSES

It begins on a world called Bormis, about 65 light years from Earth. This arid world and it's huge shallow seas was thought to be the perfect home for a colony. Settled in 2366 by mostly American Southwesterners, a couple dozen Australians, and a handful of stubborn Italian Farmers, it was soon found to be a mineral storehouse that would provide a huge resource pool for many years to come.

HISTORY

Native life on Bormis never developed beyond a few species of shellfish and a few hearty plant-like species resembling sawgrass and tumbleweed. Earth crops proved to grow poorly in the harsh chemical-laden soil and horticultural greenhouses soon became the norm for food production. The sealife, while abundant and edible, proved to be the foulest tasting substance just short of Syntha Bologna.

Quite by accident, a strain of mutant grape adapted and flourished under Bormis's hot climate. This started the legendary Bormis wine industry and its yearly exotic wine export. Items like 'Rosinis Purple Blush' can capture up to 5000d's a bottle on Earth. By 2448 over a hundred wineries had sprung into existence, most being family-run operations that were no competition to the larger Wine Corporates.

EXPORTS & ATTITUDES

Other exports of Bormis include machine parts, chemicals and not much else. Most residents consider Bormis to be the armpit of all known settled worlds, and wish they'd never settled on such a godforsaken planet. Of the 200,000 colonists currently living on Bormis, a full 85% work in the wine industry and wish they were somewhere else.

SCENEREO START

On Bormis every Living Block has a Wine Bar, and that's where the players start. Three weeks ago, they were dropped off to pick up a shipment of 'Giovanno's White

Rosey', a thousand bottles of a hideously expensive vintage that was produced by a now-defunct vinyard. They discover the order has failed to show up at the proscribed location and that their cash advancement for transport has been frozen by the Bank of Bormis due to the closure of Giovanni's Vinyards. Having come to Bormis on the lure of a high profit potential on the sale of the wine, the players find they are basically stuck here, with little or no money to survive on.

BORMIS HOSPITALITY

Players should realize the gravity of the situation as the Unionized Vintners begin charging 'Spacers' for everything from pouring their drinks into their glasses, to getting a table in a crowded bar. In fact, the Unionized Vintners will charge players for virtually anything they can get away with, including cleaning up spilled drinks, providing towels for players to clean up spilled drinks themselves, and even charging a fee to avoid spilling players' drinks. Players should soon tire of this form of extortion, and soon leave the bar. As they leave, they hear the sound of a scuffle in the alley behind the bar.



THUGS

As they investigate, they see that a gang of thugs is beating an old man within an inch of his life. The obvious leader of the gang viciously kicks the old man and says: "You sign the papers next time, or we'll *really* get tough." Another gang member pulls out a small pistol and points it between the old man's eyes for effect.

HELPING THE OLD MAN

The old man is Russ McCarthy, the owner of 'McCarthy's Vinyard', a small vinyard, but producing an amazingly popular and expensive wine. If players interact and save him, he will be grateful and take them back to his Winery. (Any harm to the thugs will be noted and a second talk with McCarthy will be planned by the folks who have sponsored the assault.) This may lead to a confrontation at his homestead and bottling plant that night. No matter the outcome, defending the man will get the players arrested on some trumped up charge.

"My grandparents migrated here and built the farm! They aint taking it away from me and giving me a 10th of what its worth. That ain't fair and it ain't the law."

Russ McCarthy



WINE WAR

What the players do not expect is a number of the smaller Family Vinyards, including Giovannos have been pushed out of Business by Northpoint Vinyards. They now have their eyes set on McCarthy and plan to take his vinyard either by purchase or seizure. The night following the players' visit to his house, another hit team will head to the McCarthy Vinyards to terrorize the owner and his few remaining employees. The 12 thugs will smash windows, and attempt to intimidate all concerned. It will be assumed the players will be there and offer a great and creative resistance.

THE NORTHPOINT STORY

Northpoint Wine Corporate is ranked number three in terms of production and profit. They are rapidly bucking for Number 2 as well as control of the entire Independent Wine Makers Association, which controls fully a third of all exports.

Not too many people like Northpoint. The company is comprised of a scandalous lot of corporate vultures who pick and claw at their competition, as well as the lesser companies, while presenting to the offworld media an aura of a friendly, helpful, generous company that has everyone's best interests at heart, and that they are just a bunch of great individuals. In fact, the entire legal system on Bormis is run by the 10 largest Vinyards, in a mafai-like manner. *'What's good for the Industry is good for Bormis'* is their motto. They control the hideous shipping tariffs on incoming and outgoing material, the exhorbant tax rate, and 'membership dues', which most family vintners term: 'protection money' from the un-unionized Vintners. All is under the auspices of The Greater Wine Manufacturers Association. Once a beneficial

organization, GWMA has fallen under the control of the few and the power hungry.

"Hey, if you don't pay, you don't play. We got mouths to feed too, and if you want to sell wine, you pay the Association. You want to serve wine, you pay the Union. Remember it protects you, insures you, and limits production of less than 'our standard of quality' product."

Dave Linder
Northpoint CEO



ICL OFFICES

Napa City is the capitol of Bormis, with just over 15,000 colonists who live in the area. There is an ICL Station, but it is greatly understaffed, with only three ICL Marines and a Judge who is ready for retirement. Since Bormis is protected under Charter by ISCO, the Judge can demand the Government correct injustice or be taken over by the ICL until things are corrected. Judge Rose is bored to death with this underdeveloped little hothouse world and generally stays inside his air-conditioned courthouse, which was graciously provided by The Greater Wine Manufacturers Association. Judge Rose rarely ventures outside, let alone to any of the vinyards, so he really knows nothing about the social and political problems Northpoint has been creating. Kept busy by paperwork and being shuttled to dinner parties, the Judge is kept in the dark about the corruption at Northpoint. The objective of Northpoint is to keep the Judge away from the truth.

"My job is to be fair, to correct the wrongs in society and see to equality for all sentient beings. Being an ICL Judge is nearly a sacred trust!"

Clayton Rose
ICL Judge



CONTACT WITH JUDGE ROSE

If players try to contact the Judge, they will be notified at the courthouse that the Judge is in chambers and cannot be disturbed. If they persist, a constable will arrive and request that they immediately depart. If they still persist, they will be arrested for non-compliance and trespassing.

THUGS RETURN

If the players fought the thugs at McCarthy's the previous night (second encounter-at McCarthy's house), they will have outstanding bench warrants for their arrest for assaulting numerous members of Northpoint's 'Merger Contract Negotiating Team.'

RIGGED JUSTICE

Players will soon learn how swift justice is on Bormis, as the video terminal in their cell will come to life, and read the charges: Non-Compliance with direct orders, Trespassing, (Resisting Arrest if warranted), and numerous harrasment, tresspassing, and assault (and maybe battery) charges from Northpoint Vinyards. The video terminal, unfortunately is one-way. The Bailiff (actually a Northpoint employee) reads the charges and the Judge asks how the defendants' plea. In theory, the prisoners are supposed to enter their plea at this point, but Northpoint has ingeniously rigged the system so that the speakers are actually connected to a hidden microphone, where one of Northpoints many 'employees' is stationed. Despite what the players say, the words "Guilty" come out of the speaker, and the Judge sentences them accordingly.

SENTANCING

The Judge will sentence the players to either the chain gang of the Northpoint Grape Pickers Barracks or work time in the Chemical Processing Facility 80 miles north of Napa. Either sentence will result in 6 months (50% chance of either sentence) with extra time tacked on for any unusual behavior. Time will continue to be tacked on the sentence for any reason including a bad attitude.

ESCAPE

Escape, once the players are in the Barracks or Chem Plant, is possible but there is one catch. Each inmate is fitted with an explosive ankle ring that has a proximity activation fuse. If an inmate wanders too far from a transmitter station, the ring no longer will receive the proper disarming code, and the device will begin beeping. It will beep for 120 seconds before triggering a small explosive device which will do 50 points of blast. Removal requires an electronics or demolition skill. Difficulty is rated at 20% chance without skill modifiers. Failure will trigger the anti-tamper mechanism and detonate the device immediately. Fine electronics tools or custom-altered tools are required to attempt to deactivate the device. Custom tools can be created with a Metal Fabrication skill of 4 and about 3 days of work while incarcerated. If players have not removed or disarmed their ankle bracelets after the 120 second timer expires, they loose a limb.



SIGNALING THE ICL STARSHIP

This will involve making an outgoing transmission to an incoming ICL Cruiser that will make an orbit to exchange mail and drop 'official' freight. Remember that Northpoint would never stand up to an audit or investigation by the ICL and its sister branch; the IRS (Interstellar Revenue Service).

If Northpoint feels threatened they will stop at nothing short of killing the Judge, Marines and even the players. The 'help' message to the ICL starship ship must be transmitted or the vessel will slingshot out of orbit on the first pass and not return for 6 months. As they only handle priority cases, the players will only have a window of d10+10 hours to transmit the message, once they know the ship is within the system.

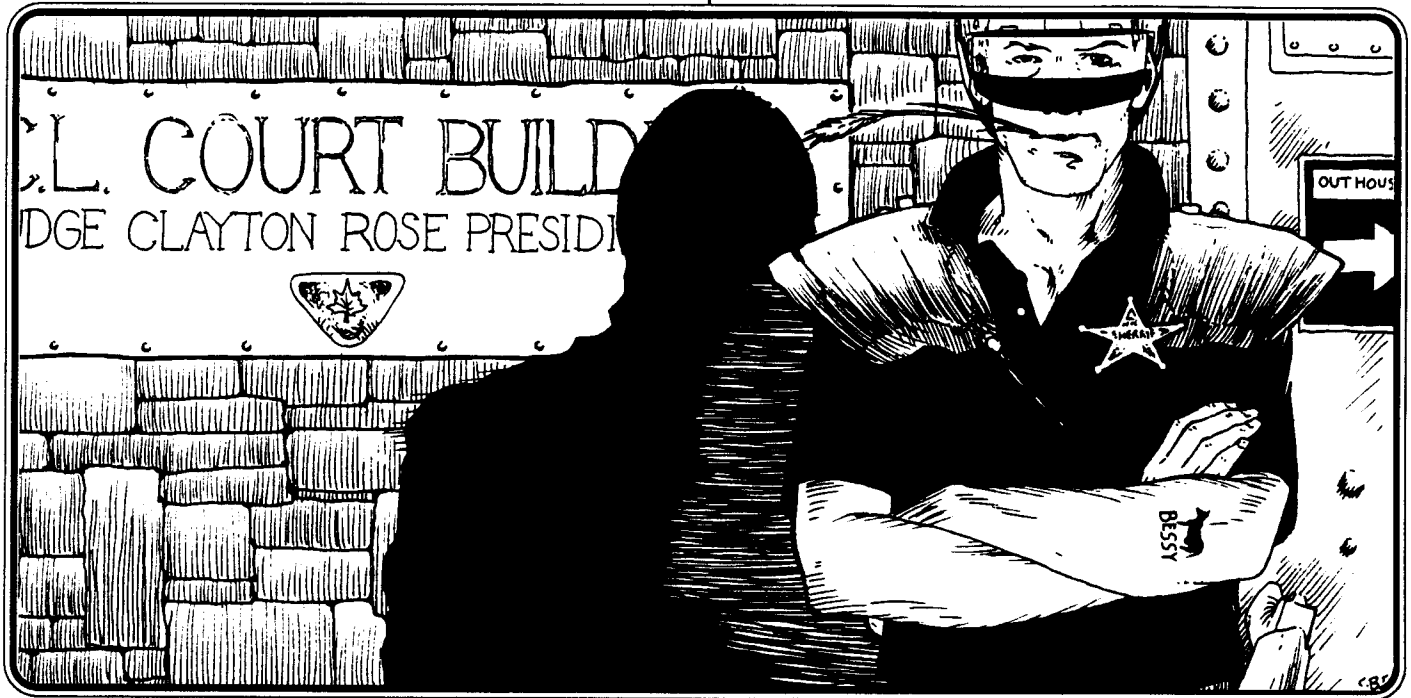
GM'S NOTES

For the sake of the players, let them know about the incoming ship in some round-about way after they escape from either detention facility or during the course of the scenereo when they will have a few days to plan.

SENDING THE MESSAGE

The Transmission Dish at the top of the Napa City Communications Complex is critical to the situation. This is the only point where a powerful enough signal can be transmitted directly to the ICL ship. From the complex, the Northpoint mole can simply switch off the access from within their secret controls within the courthouse.

Players must either sneak in and transmit the message, or find and gain control of the secret control panel and ensure that everything is working properly. The panel is in the Northpoint Credit Union office within the ICL Court Building. Any player with electronic Diagnosis or a related skill can track the location of the cutoff with an unmodified chance of 40% preventing the realization that there is a cutoff.



CONVINCING THE JUDGE

While grumpy at having his routine disturbed, Judge Rose will prove to be fair to the players if contacted, and will actually help the players if and when he realizes the critical nature of the situation.

If the situation progresses far enough, the Judge will join the characters and lend his skill and a little ICL training.

This may evolve into a real stand-up fight or heavy covert action by the players.

WINNING

The way to win this scenario is not to play Northpoint's games. A simple message to the ICL will set an investigation into motion that will destroy Northpoint and correct the wrongs they have caused.

Keep in mind the objective of the scenario is simple. Help McCarthy keep his vineyard and notify the Judge and the ICL of the Nazi-like behavior of Northpoint.

ICL MARINES

For the first few days of the scenario the three main aids of the Judge are off to a mining Corporate on the Southern Continent investigating the accidental death of a Northpoint Executive and the landing of an unidentified aircraft.

PERSONALITIES

The three ICL Marines are an odd lot stationed far on the Frontier for no good reason. The three have been friends for years and regardless of appearance, make a crack team of investigators for the ICL.

Like Judge Rose, they have been kept busy and out of the way of the Northpoint Corporate and their activities. Generally they cooperate with Judge Rose but consider him a snob in his airconditioned tower.

This human-Alien crew is considered a curiosity by the citizens of Bormis who give them a wide berth

Gordo Johansen

ICL MARINE, HUMAN, COMMANDER

STATS

- STR 16
- AGL 13
- DEX 12
- CON 13
- ACC 12
- DOD 13
- THR 14

SKILLS

- Investigation* 14
- Law* 12
- Light Weapons* 08
- Computer* 12
- Pistol* 09
- Adds +3 on ACC*
- Officer* 14

PERSONALITY

No-nonsense, by the book, a real leader, respected, troops rally behind him, awe-inspiring. Doesn't smile much. Hates corruption.



GM'S ENDING NOTES

Wrapping up the scenereo is easy. The group may transmit the message and not know the reply until Northpoint captures them and hauls them out for disposal. At the LAST minute the ICL Marines might land to help. Same goes if they have baracaded themselves in the transmission facility. Give them 5000 EXP for a job well done.

The grateful liberated Independent Wine Producers will award the players a cargo worth 900 t's and a small Ontario Class ship seized from Northpoint.

It would be a good start with a small ship for any group.

STARSHIP OWNERSHIP

The ICL may have helped award the players their small ship with ulterior motives.

As a start, characters are given a preferential contract to buy McCarthy's Finest at discount rates and haul exclusively to McCarthy clients on other worlds. This will give them a good economic start and teach them that worlds are interlinked.

See the second volume of FTL for Ontario Class ship diagrams and more information on interstellar travel. Also included there are ship operation and cargo sheets.

Beka Cho'Nokk

ICL MARINE, BOR'CHA, SARGEANT

STATS

STR

22

AGL

11

DEX

12

CON

17

ACC

14

DOD

13

THR

14

SKILLS

Investigation 10

Law 10

Heavy Weapons 14

Computer 06

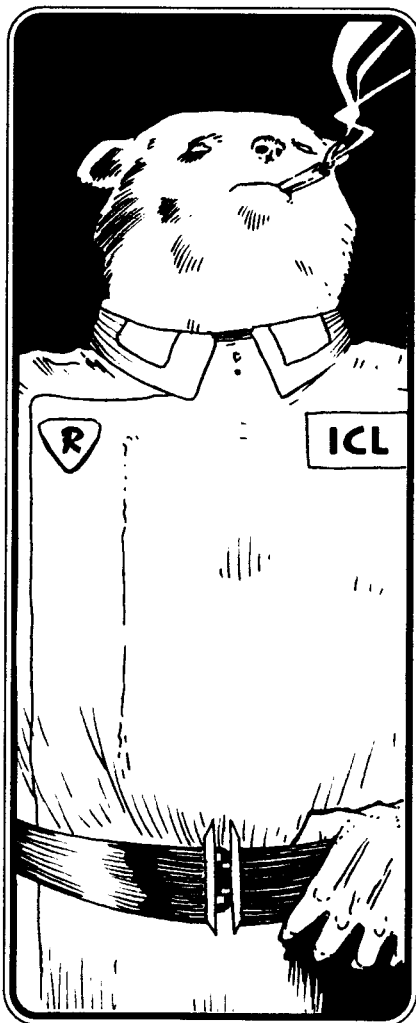
Rifle 12

-Adds +4 on ACC

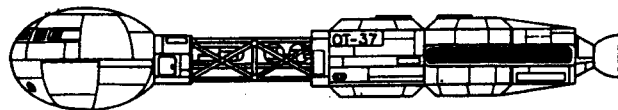
Instructor 13

PERSONALITY

Huge, furry, smiling, cigar-chomping, former Drill Instructor. Very Wise for his years in the ICL. Will fight hand to hand.



ONTARIO CLASS STARSHIP



OTHER OUTCOMES

Less that outstanding outcomes are possible with this scenereo. Worst possible outcome is a direct confrontation and their spend six months or more in jail without any exposure of Northpoint. While the ICL starship will return every 6 months, it will be a long time for the characters to survive in a harsh environment of forced labor.

If they choose to ignore the needs of the old man and fail to get involved with the situation, their money will soon be gone and they will be forced to grub out a wage in one of the smaller vinyards. As Northpoint expands, they will eventually be in the way of expansion at a later date.

If characters are obnoxious enough the Northpoint Corporate might even consider recruiting them for their own brand of skulduggery. This is the GM's decision.

Derble Aka-Aka-Aka

ICL MARINE, DABE, PRIVATE

STATS

STR

28

AGL

10

DEX

09

CON

19

ACC

10

DOD

10

THR

11

SKILLS

Security 10

Elect Engineer 05

Laser Weapons 06

Computer 16

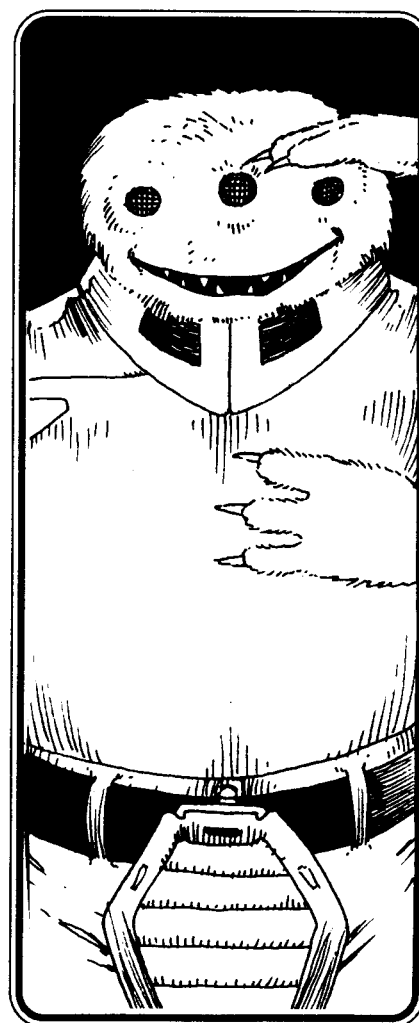
Pistol 03

-Adds +1 on ACC

Playing Dumb 16

PERSONALITY

Happy and generally carefree. This Dabe plays dumb but is highly intelligent and a whiz with computer systems. He enjoys combat games.



FINAL CAMPAIGN NOTES

FTL: 2448 lends its premise to large or small groups of people who have become explorers of the greatest frontier ever opened to mankind. Adventure is everywhere across space and beyond.

CAMPAIGN DESIGN

During the first 10 years of playtesting and FTL campaigns there have been many types of groups and campaigns that captured the flavor of the game.

Most popular have been the independent freighter crews who have acquired their ship by unusual means. These crews ferry freight and get into trouble across the frontier and settled space. Often they are working covertly with ISCO and the ICL while they make a modest profit that always seems to be used to keep the ship running.

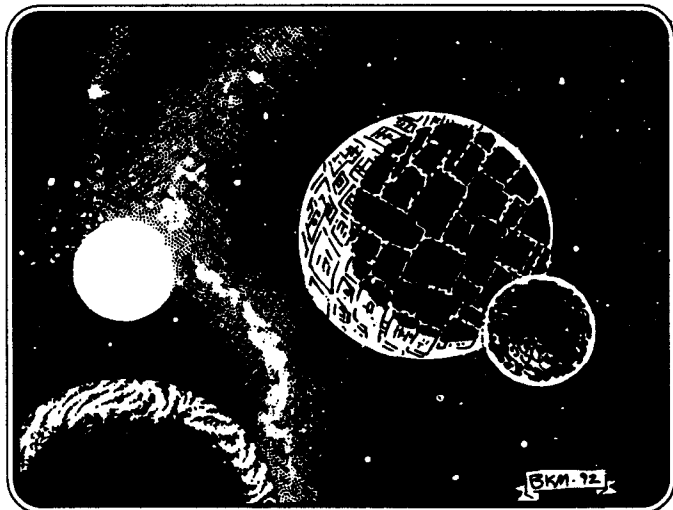
With the ownership of a Starship come serious responsibility and a stability of group interaction.

Second most popular have been the Military groups or ICL Peacekeepers on the frontiers who have to deal with just about anything. When their backup is lightyears away, a crew becomes very resourceful.

One amazing group of 15 individuals ran a Police/Medical Starship where the crew worked together across the Frontier. A second large group started with Space Navy, went to Enemy Stars and retired out to buy a freighter.

REMEMBER

- 01 FTL: 2448 lends itself to 4 to 10 excellent role players who are not overly trigger happy.
- 02 Players who are constant as well as intermittent will find that FTL is an easy game to move their characters into and out of. Characters can take leave from a Starship and return at a later date and port.
- 03 The GM should plan adventures well in advance and create necessary game related material in the form of records and special data. The use of taped special effects and background sounds adds much more to a campaign than most realize. FTL's game designer Richard Tucholka highly recommends the Syntonics 'Environments™' tapes. Creating maps and other handouts are great for game play and 'close' player participation.



FOR THE GM

- 01 Never let your players gain control of the game. Your game decisions are final.
- 02 In the same vein, don't keep absolute control over your players. Be willing to change a ruling but don't make it a habit.
- 03 Don't herd your players through a situation they have no hopes of changing. They might as well just listen to the story as participate when they have little to do.
- 04 The invincible character is no fun for the GM or other players. When there's no chance of death or challenge, what good is running a character? Any changing or fudging of a character's statistics or skills should not be allowed. A player character with low to mediocre stats becomes interesting and more of a challenge to role-play than a super-powered character.
- 05 Make your players work for their supplies and wealth. Don't ever be afraid to destroy a character's equipment. Necessity is the mother of invention and the basis of a good game. Make 'em sweat.
- 06 Don't design killer or solutionless scenarios. A grim, blood thirsty GM is no fun for the adventurers. Always give your players a way out of a situation they cannot handle.
- 07 A GM may find himself in a situation where he or she is tempted to fudge a dice roll for a player's benefit. This is not the sign of a weak GM, but a very good GM who can understand the difference between bad luck and a bad decision. Just don't let the players know.
- 08 Inconsiderate, ridiculous, or homicidal players should be removed from the game at the first opportunity (preferably out an empty airlock without a suit). There is no place in a role-playing adventure for fools who disrupt the game or get other player's characters killed. There is no and never will be an excuse in a RPG for acute player stupidity.
- 09 A little humor in a game makes it a lot of fun. Remember humor has its place, so don't get too wrapped up in fun or your credibility as a GM will suffer. Avoid slapstick as a GM, you'll nauseate your serious role players.
- 10 Find an interruption-free and quiet place to play. The created tension of the game is very likely to suffer from constant interruption.
- 11 Don't forget the paper, pens, munchies and soft drinks.
- 12 Above all, be honest and fair with your players. You are the person they trust to guide them on an adventure. You, as a GM are an extraordinary new breed of story teller. Give your players something to remember.

REMEMBER

- 01 Above all else, this Science Fiction RPG is designed for fun.

FINAL NOTES TO PARENTS

In the last 24 years, role playing games have grown from a supposed fad to a permanent part of the world hobby industry. These fantastic and imaginative games have come under attack by parents groups and some religious leaders who claim role playing is psychologically dangerous for our children. They tend to cite cases of a few mentally unbalanced individuals who used these games to their own ends and gained coverage by the media due to the sensationalism of the event.

"Are Role Playing Games Harmful?"

The truth is quite the opposite. The role playing game is an outstanding hobby and can be a learning experience. Role playing games motivate the mind of the child to solve problems and learn, even to the point of causing the child to take a secondary interest in history or science.

Role playing games also promote social and group interaction that can help in school or later life. This is something a video game can never do.

Role Playing is Imagination!

Perhaps the greatest benefit of this new generation of games is the potential to open the imagination of the child. So when your children play, remember these games have a hidden potential for education as well as fun.

OTHER TRI TAC GAMES

FTL: 2448 is the second in a series of games by Tri Tac Systems that have compatible rules and systems.

INCURSION

Incursion is the game of Galactic Exploration and high adventure. You, a twentieth century human, become owner of a mighty HFTL Starship, lost in a crumbling Galactic empire of a million worlds. As you explore these worlds and interact with aliens, your mission is simple. Survive and find home again.

See Tri Tac Game #4001

INCURSION

FRINGEWORTHY

Fringeworthy is Tri Tac's interdimensional role playing game. You are a member of IDET, a United Nations team sent to explore Alternate and Alien Earths. You are one in a hundred thousand who can use the transit system to these worlds.

See Tri Tac Game #1001

FRINGEWORTHY

BUREAU 13

STALKING THE NIGHT FANTASTIC

Tri Tac's award winning game of modern Horror and Paranormal Adventure. Become a member of the super secret Bureau 13 and explore the dark side of America. As agents of the night your mission is to find the supernatural, preserve it or destroy it as you see fit. You have the latest in high technology, equipment and weapons. Just don't get caught. Winner 1991 RPGA Best Fantasy Game.

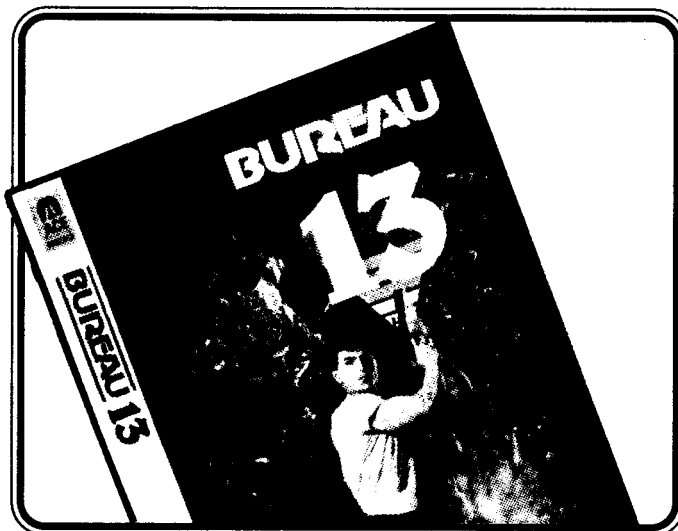
See Tri Tac Game #3001

BUREAU 13

HARDWIRED HINTERLAND

Tri Tac's Future Science Fantasy game is on the boards for a 1992 release. Fantastic role-playing beyond time and space.

See Tri Tac Game #4500 HARDWIRED HINTERLAND

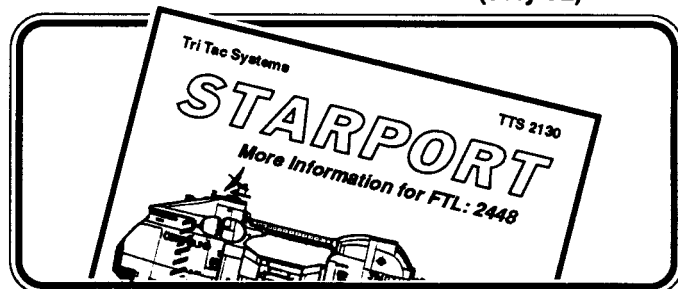


READ THE BUREAU 13 BOOKS!

Starting in 1991 Bureau 13 became a paperback book series from the talent of Nick Pollotta.

Published by Ace Books, find them at better book stores everywhere!

BOOK 1	Bureau 13	(July 91)
BOOK 2	Doomsday Exam	(January 92)
BOOK 3	Full Moonster	(July 92)



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Tucholka@Hotmail.com

RECOMMENDED

Another great system that the designer of Incursion recommends is Timeline Ltd's *Morrow Project*™.

REFERENCE MATERIAL

The following is a list of the highly recommended authors and specific titles that can add a wealth of ideas to your campaigns.

ANY SPACE RELATED BOOKS OR STORIES BY:

Isaac Asimov	Arthur C Clarke
Robert Heinlein	James P Hogan
James Herbert	Robert Asprin
Alan Dean Foster	James White
Marion Zimmer Bradley	Michael McCollum
H Beam Piper	Larry Niven
Murray Leinsner	Lawrence Watt-Evans
Christopher Rowley	A Bertrum Chandler

BOOKS TO READ

Burnham's Celestial Handbooks (3)	Burnham
The Drama of the Universe	Abell
Communication with Extraterrestrial Intelligence	Sagan
Other Worlds than Ours	Cade
Is there Life on Other Worlds	Anderson
Habitable Planets for Man	Dole
Too many books to mention by	Asimov
Frontiers of Astronomy	Hoyle
Russians in Space	Riabchikov
Carrying the Fire	Collins
2000 Lbs of NASA Handouts	NASA
Confrontation in Space	Stein
The Universe & The Planets	Time Life
Man Among the Stars	Mueller
Visions of Space	Kerrod
Catalog of Nearby Stars	Gliese
GURPS™ SPACE	Barton

LIBRARIES

University of Michigan Astronomy Library	Ann Arbor MI
Library of Congress	Washington DC
Kresgee Library, Oakland University	Rochester, MI
Detroit, Southfield, Rochester, Farmington	MI Libraries
National Air & Space Museum & Dr. D Devorkin	
Virginia Polytechnic & Dr. R Heartson	
Dr. Wilhelm Gliese, Heidelberg	

FILMS

Since the beginnings of SF there have been an amazing number of films related to Space. Films are even more rare. The films tagged (*) are the designer's favorites.

Alien & Aliens*	Star Trek*
Space Raiders	2001 & 2010
The Last Starfighter*	Man in Space (series)
Space Angel (animated)	Months of Japanimation

MAGAZINES

Analog	Isaac Asimov's SF Magazine
Astounding	Vertex
Amazing	Astronomy
Galaxy	if
Imagination	Worlds of Tomorrow
Sky & Telescope	Aboriginal SF
Other Worlds	Fantastic Universe
Omni	Discover
Science News	Playboy
Aerospace America	

Ben, Bells, & Quag

"On Fomalhaut Bells finds Ben in the Space Dragons Den Bar & Grill getting blasted to the gills. Without hesitation, she picks up the half sober human and takes him back to the Trell's starship.

Accepting his fate and the loss of half a bottle of Scotch, he is shocked when he is dropped into the captains chair and the Trell hangs a captains hat on his head.

While Ben and Bells will run the future crew and company, The Trell owner will tend to the ships Hydroponics farm.

Ben decides to stop drinking.

Months later the Starship is complete and a hundred watch as it slips from port and heads for deep space. In the years that follow Ben, Bells, Quag and a very motley crew slowly prosper as they salvage and adventure across Settled Space and the Frontier.



FTL BOOK 2

This is Book 1 of two Books you will need to complete your FTL: 2448 GM and Players Handbook. Due to size constraints the nearly 400 pages were split into two volumes with the majority of Character related data here and the Starship, Planetary and Modular sections in the second book. There you will find:

STARPORTS	ENEMY STARS
CARGO	SPACE NAVY
SHUTTLES	STARCHARTS
STARFLIGHT	COP: 2448
SHIPBUILDING	STAR PIRATES
STARSHIPS	FRONTIER: 2448
STARSHIP COMBAT	EMR 2448
DECKPLANS	
PLANETARY GENERATION	
ALIEN DESIGN	
CULTURE	
MORE UTILITY SHEETS	

FINAL DESIGNER'S NOTES

Tri Tac Games does not support use of Black Magic, Devil Worship, UFO Brotherhoods, Environmentalist Wackos, Rabid Fundamentalism, New Age Thinking, Crystal Energies, or the people who practice belief in such things.

We have included this disclaimer (a genuine waste of space) because many narrow-minded individuals equate Role Playing with the above and can not make the distinction between Science-Fiction and reality.

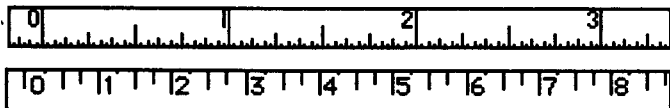
No offense is intended toward specific beliefs or any religious groups or individuals. If we have offended your beliefs in any way, please feel free to **purchase and burn** as many of these books as you desire. Send a (SASE) with your questions, comments, criticisms, and letter bombs. Expect a letter and a catalog. Thanks.

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 Pontiac, MI
 48340
 Tritacgames.com

INFORMATION & UTILITY APPENDIX

The next section of FTL: 2448 is the Utility Appendix that contains special data for the GM and players. These will include Character and Utility sheets as well as special tables that make game play easier. Most of these sheets are self explanatory.

Permission is granted to photocopy any of the following pages after 177 for game play.



METRIC EQUIVALENCY

For these conversions you will need a pocket calculator or a little patience.

LENGTH

1 Inch	=	2.54	Centimeters
1 Foot	=	30.48	Centimeters
1 Yard	=	0.9114	Meters
1 Mile	=	1.61	Kilometers
1 Centimeter	=	0.3937	Inches
1 Meter	=	3.28	Feet or 1.093 Yards
1 Kilometer	=	0.6214	Miles

WEIGHT

1 Ounce	=	28.35	Grams
1 Pound	=	453.60	Grams
1 Gram	=	0.03553	Ounce
1 Kilogram	=	2.206	Pounds

NUMBER CRUNCHER

Page 178 is an easy utility designed for reducing or increasing numbers. In many cases the tables in FTL: 2448 will tell the player or GM to roll under (.75) of a number. To find this fraction simply index down the (1.00) of the column to find the number you need. From that point index left or right to find your needed number. This table also rounds down to the nearest whole number. As an example, you might need to find (.25) of the number 70.

.12	.25	.50	.75	1.00	1.25	1.50	1.75
008	017	035	052	070	087	105	122

INDEX

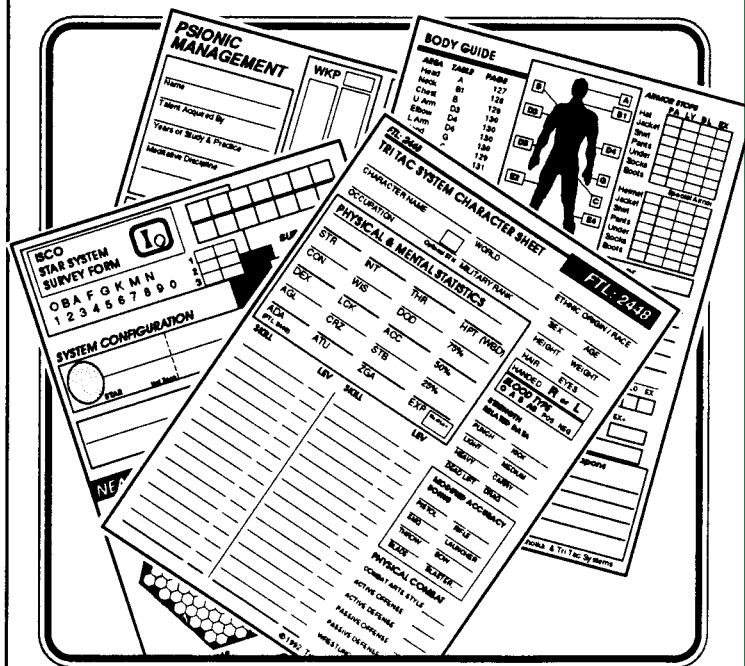
The index on Pg. 179 is an easy cross reference to many areas of the game. The first index is a simple map to finding a section. The second more complex index is a detailed look at sections of both FTL books and how sections relate to each other.

NPC or CHARACTER JUMP STARTS

This large new section is a compendium of 12 possible NPC character starters or used to help assist you in the generalized creation of your character. While some statistics are listed, some are left blank for the GM or player to work with. Find them on Pages 182-184. Modification to Alien statistics is an easy process. See Also Pg. 036

UTILITY SHEETS

The last sheets in the book are your character and equipment sheets. Nearly a decade of suggestions and play testing have gone into their design. If you don't like them, let us know what you think and suggest. Look to new modules for more utility ideas and additional sheets.



Tri Tac Games

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001	002	005	007	010	012	015	017
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001	003	006	009	012	015	018	021
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004	009	018	027	037	046	055	064
004	009	019	028	038	047	057	066
004	009	019	029	039	048	058	068
004	010	020	030	040	050	060	070
004	010	020	030	041	051	061	071
005	010	021	031	042	052	063	073
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005	011	022	033	044	055	066	077
005	011	022	033	045	056	067	078
005	011	023	034	046	057	069	080
005	011	023	035	047	058	070	082
005	012	024	036	048	060	072	084
005	012	024	036	049	061	073	085
006	012	025	037	050	062	075	087

NUMBER MULTIPLIER 51-106

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006	013	027	040	054	067	081	094
006	013	027	041	055	068	082	096
006	014	028	042	056	070	084	098
006	014	028	042	057	071	085	099
006	014	029	043	058	072	087	101
007	014	029	044	059	073	088	103
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007	016	032	048	065	081	097	113
007	016	033	049	066	082	099	115
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Fraction Rounding

All numbers in this table are rounded down to the closest whole number. In the case of fractions of a whole number, the whole number (1) is substituted for playability.

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This is a quick guide to sections of the book.

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About The Author

Sometimes called the *Great Gaming Guru of Michigan*, Richard Tucholka is a long time RPG'er and once a staff writer for *Stardate Magazine*. Richard's game designs are unique and varied with an odd sense of humor that keeps creeping in.

Most recently *Bureau 13: Stalking the Night Fantastic* won the 1991 *RPGA Best Fantasy Game of the Year Award* at *GenCon*.

Richard lives in Pontiac, Michigan and is currently trying to index over 18,000 books in his home. You can find him at many *Midwestern SF and Gaming Conventions*.

MAJOR GAME DESIGNS

- *The Morrow Project** (Timeline)
- *Bureau 13: Stalking the Night Fantastic*
- *Fringeworthy*
- *FTL 2448*
- *Incursion*
- *Hardwired Hinterland*
- *Midnight at the Well of Souls (TAG)***

* With Robert L. Sadler & Kevin Dockery

** *Astronomical Systems*

CHARACTER **Computer Tech**

OCCUPATION **High Tech Engineering**

STATISTICS	<u>09</u>	<u>15</u>	<u>10</u>	<u>41</u>	
	STR	INT	THR	HPT	WKP
	<u>11</u>	<u>09</u>	<u>12</u>	<u>30</u>	
	CON	WIS	DOD	75%	MCD
	<u>13</u>	<u>14</u>	<u>08</u>	<u>20</u>	
	DEX	LCK	ACC	50%	REC
	<u>12</u>	<u>09</u>	<u>70</u>	<u>10</u>	<u>55</u>
AGL	CRZ	STB	25%	TMP	
<u>12</u>	<u>15%</u>	<u>?</u>			
ADA	ATU	STN	ZGA	EXP	

Comp Program	<u>07</u>	Mech Engineer	<u>04</u>
Comp Engineer	<u>05</u>	Tennis	<u>02</u>
Electrical Repair	<u>04</u>	Swimming	<u>03</u>
Elect Diagnosis	<u>03</u>	Pistol Shooting	<u>02</u>
Physics	<u>04</u>	Cooking	<u>01</u>
Data Manipul.	<u>03</u>	Auto Repair	<u>02</u>

CHARACTER **Street Thug**

OCCUPATION **Making a few d's**

STATISTICS	<u>16</u>	<u>07</u>	<u>13</u>	<u>58</u>	
	STR	INT	THR	HPT	WKP
	<u>16</u>	<u>07</u>	<u>12</u>	<u>43</u>	
	CON	WIS	DOD	75%	MCD
	<u>12</u>	<u>09</u>	<u>13</u>	<u>29</u>	
	DEX	LCK	ACC	50%	REC
	<u>09</u>	<u>06</u>	<u>83</u>	<u>14</u>	<u>10</u>
AGL	CRZ	STB	25%	TMP	
<u>05</u>	<u>12%</u>	<u>?</u>			
ADA	ATU	STN	ZGA	EXP	

Street Fighting	<u>05</u>	Burglary	<u>04</u>
Threaten	<u>08</u>	Extortion	<u>03</u>
Pistol Shooting	<u>06</u>	Driving	<u>02</u>
Street Wise	<u>03</u>	Robbery	<u>01</u>
Shadowing	<u>02</u>	Blade Fighting	<u>04</u>

CHARACTER **ICL Officer**

OCCUPATION **Law Enforcement**

STATISTICS	<u>16</u>	<u>14</u>	<u>15</u>	<u>52</u>	
	STR	INT	THR	HPT	WKP
	<u>14</u>	<u>16</u>	<u>14</u>	<u>39</u>	
	CON	WIS	DOD	75%	MCD
	<u>14</u>	<u>12</u>	<u>15</u>	<u>26</u>	
	DEX	LCK	ACC	50%	REC
	<u>13</u>	<u>09</u>	<u>80</u>	<u>13</u>	<u>45</u>
AGL	CRZ	STB	25%	TMP	
<u>15</u>	<u>12%</u>	<u>?</u>	<u>14</u>		
ADA	ATU	STN	ZGA	EXP	

Criminal Justice	<u>08</u>	Zero G Football	<u>02</u>
Police Science	<u>06</u>	Swimming	<u>04</u>
Police Proced.	<u>04</u>	Vac Suit	<u>02</u>
Laser Pistol	<u>02</u>	City Politics	<u>01</u>
Street Wise	<u>02</u>	Driving	<u>04</u>
Investigation	<u>07</u>	Psychology	<u>04</u>

CHARACTER **Spacer**

OCCUPATION **Freighter Operations**

STATISTICS	<u>16</u>	<u>09</u>	<u>10</u>	<u>79</u>	
	STR	INT	THR	HPT	WKP
	<u>13</u>	<u>06</u>	<u>14</u>	<u>59</u>	
	CON	WIS	DOD	75%	MCD
	<u>09</u>	<u>14</u>	<u>08</u>	<u>39</u>	
	DEX	LCK	ACC	50%	REC
	<u>12</u>	<u>12</u>	<u>69</u>	<u>19</u>	<u>50</u>
AGL	CRZ	STB	25%	TMP	
<u>17</u>	<u>18%</u>	<u>+10</u>	<u>14</u>		
ATA	ATU	STN	ZGA	EXP	

Starship Ops.	<u>08</u>	Rifle	<u>08</u>
Shuttle Pilot	<u>06</u>	Vac Suit	<u>06</u>
Street Wise	<u>07</u>	Electrical Diag.	<u>08</u>
Engineer Mech.	<u>08</u>	Electrical Fab.	<u>07</u>
Fast Talk	<u>08</u>	Cargo Broker	<u>05</u>
Cargo Hand	<u>07</u>	Brawling	<u>04</u>

CHARACTER **Politician**

OCCUPATION **Staying in Office**

STATISTICS	<u>06</u>	<u>14</u>	<u>07</u>	<u>50</u>	_____
	STR	INT	THR	HPT	WKP
	<u>10</u>	<u>07</u>	<u>11</u>	<u>37</u>	_____
	CON	WIS	DOD	75%	MCD
	<u>08</u>	<u>18</u>	<u>07</u>	<u>25</u>	_____
	DEX	LCK	ACC	50%	REC
	<u>12</u>	<u>16</u>	<u>65</u>	<u>13</u>	<u>40</u>
	AGL	CRZ	STB	25%	TMP
	<u>18</u>	<u>05%</u>	<u>?</u>	_____	_____
	ADA	ATU	STN	ZGA	EXP

Local Politics	<u>08</u>	Protocol	<u>03</u>
Psychology	<u>05</u>	Campaigning	<u>04</u>
Wit	<u>04</u>	Fast Talk	<u>09</u>
History	<u>02</u>	Economics	<u>02</u>
Political Science	<u>06</u>	Bribery	<u>05</u>
Knowing People	<u>07</u>	Etiquette	<u>07</u>

CHARACTER **Star Pirate**

OCCUPATION **Profit**

STATISTICS	<u>17</u>	<u>13</u>	<u>16</u>	<u>56</u>	_____
	STR	INT	THR	HPT	WKP
	<u>15</u>	<u>13</u>	<u>15</u>	<u>42</u>	_____
	CON	WIS	DOD	75%	MCD
	<u>14</u>	<u>12</u>	<u>17</u>	<u>28</u>	_____
	DEX	LCK	ACC	50%	REC
	<u>14</u>	<u>13</u>	<u>80</u>	<u>14</u>	<u>45</u>
	AGL	CRZ	STB	25%	TMP
	<u>09</u>	<u>06%</u>	<u>?</u>	<u>14</u>	_____
	ADA	ATU	STN	ZGA	EXP

Grand Theft	<u>08</u>	Demolition	<u>02</u>
Weapons, Light	<u>06</u>	Pilot Vehicle	<u>04</u>
Weapons, Heavy	<u>04</u>	First Aid	<u>02</u>
Disguise	<u>02</u>	Mercenary	<u>01</u>
Martial Art	<u>02</u>	Blade Combat	<u>04</u>
Starship Ops.	<u>07</u>	Fast Talk	<u>04</u>

CHARACTER **News Reporter**

OCCUPATION **GNN News Anchor**

STATISTICS	<u>08</u>	<u>16</u>	<u>07</u>	<u>41</u>	_____
	STR	INT	THR	HPT	WKP
	<u>12</u>	<u>19</u>	<u>09</u>	<u>30</u>	_____
	CON	WIS	DOD	75%	MCD
	<u>08</u>	<u>10</u>	<u>07</u>	<u>20</u>	_____
	DEX	LCK	ACC	50%	REC
	<u>11</u>	<u>17</u>	<u>70</u>	<u>10</u>	<u>45</u>
	AGL	CRZ	STB	25%	TMP
	<u>15</u>	<u>6%</u>	<u>+16</u>	<u>10</u>	_____
	ADA	ATU	STN	ZGA	EXP

News Reporting	<u>12</u>	Vac Suit	<u>05</u>
Journalism	<u>04</u>	Protocol	<u>06</u>
Fast Talk	<u>08</u>	Politics	<u>02</u>
Computer Use	<u>05</u>	Pilot Vehicle	<u>01</u>
Research	<u>04</u>	Psychology	<u>04</u>
Investigation	<u>07</u>	Law	<u>03</u>

CHARACTER **ICL Marine**

OCCUPATION **Frontier Patrol**

STATISTICS	<u>16</u>	<u>13</u>	<u>15</u>	<u>40</u>	_____
	STR	INT	THR	HPT	WKP
	<u>12</u>	<u>12</u>	<u>14</u>	<u>30</u>	_____
	CON	WIS	DOD	75%	MCD
	<u>14</u>	<u>16</u>	<u>16</u>	<u>20</u>	_____
	DEX	LCK	ACC	50%	REC
	<u>13</u>	<u>08</u>	<u>74</u>	<u>10</u>	<u>45</u>
	AGL	CRZ	STB	25%	TMP
	<u>15</u>	<u>14%</u>	<u>?</u>	<u>13</u>	_____
	ADA	ATU	STN	ZGA	EXP

Command	<u>08</u>	First Aid	<u>03</u>
Protocol	<u>06</u>	Vac Suit	<u>04</u>
Tactics	<u>06</u>	Law	<u>05</u>
Heavy Weapons	<u>13</u>	General Survival	<u>04</u>
Urban Survival	<u>04</u>	Psychology	<u>04</u>
Brawling	<u>04</u>	Pilot Vehicle	<u>05</u>

CHARACTER **Doctor**

OCCUPATION **Working on a Starship**

STATISTICS	12	13	09	49	
	STR	INT	THR	HPT	WKP
	14	12	11	36	
	CON	WIS	DOD	75%	MCD
	09	16	07	24	
	DEX	LCK	ACC	50%	REC
	10	11	76	12	55
	AGL	CRZ	STB	25%	TMP
	16	08%	?	12	
	ADA	ATU	STN	ZGA	EXP

General Medical	08	Community Med.	05
Research	06	Pharmacology	03
Autodoc Ops.	05	Diagnosis	02
Physiology	04	Obstetrics	02
Surgery	03	Autopsy	04
Space Medicine	02	Toxicology	04

CHARACTER **Colonist**

OCCUPATION **Building a New World**

STATISTICS	16	14	15	52	?
	STR	INT	THR	HPT	WKP
	14	16	14	39	
	CON	WIS	DOD	75%	MCD
	14	12	15	26	
	DEX	LCK	ACC	50%	REC
	13	09	80	13	45
	AGL	CRZ	STB	25%	TMP
	12	02%	?		
	ADA	ATU	STN	ZGA	EXP

Agriculture	07	Small Business	07
Animal Care	06	Food Process.	03
Meteorology	04	Pest Control	05
First Aid	03	Geography	02
Trade	02	Heavy Vehicle	04
Computer	05	Farm Vehicle	02

CHARACTER **Joe Average**

OCCUPATION **Citizen of Any World**

STATISTICS	12	09	08	44	?
	STR	INT	THR	HPT	WKP
	11	07	12	33	?
	CON	WIS	DOD	75%	MCD
	07	10	09	22	?
	DEX	LCK	ACC	50%	REC
	13	08	30	11	Varied
	AGL	CRZ	STB	25%	TMP
	10	01%	?		
	ADA	ATU	STN	ZGA	EXP

Main Career	06	Minor Sport	02
Career Related	06	Tax Evasion	04
Pilot Vehicle	04	Hobby	02
Administration	02	Fast Talk	01
Urban Survival	05	Local Law	03
Family Survival	07	Computer	04

CHARACTER **Primitive**

OCCUPATION **Shaman (with PSI)**

STATISTICS	14	13	14	56	36
	STR	INT	THR	HPT	WKP
	16	15	13	42	12
	CON	WIS	DOD	75%	MCD
	12	10	17	28	?
	DEX	LCK	ACC	50%	REC
	12	12	81	14	45
	AGL	CRZ	STB	25%	TMP
	17	06%	?		
	ADA	ATU	STN	ZGA	EXP

Forest Surv.	06	Tracking	08
Natural Medicine	05	Hunting	06
Tribal Politics	04	Wood Fab.	04
Tribal Lore	04	Acrobatics	03
Blade Weapon	07	Empathy	02
Traps	04	Healing	03

FTL FAST PLAY

USE OF HYPER FAST PLAY

While most players and GM's enjoy detailed and realistic systems, others want a fast system to speed role play. The following system creates a generic set of charts for easy play.

SKILL AND STATISTIC USE

Every point of skill level or Statistics point is worth 5% to attempt something. Simply roll a d100 under your Statistic or Skill Level to accomplish the task.

MODIFIERS

Modifiers can always be used by the GM when he or she thinks there is a call for a little more realism or difficulty. This universal table should cover all your needs from skills to hit, dodge or whatever.

CRITICALLY EASY	+40
PIECE OF CAKE	+20
REAL EASY	+10
EASY	+05
AVERAGE	+0
SLIGHTLY DIFFICULT	-05
DIFFICULT	-10
VERY DIFFICULT	-20
IMPOSSIBLE	-40
YOU GOTTA BE KIDDING	-60

UNIVERSAL COMBAT / SITUATION CHART

For those who prefer such systems, use this generic chart for any situation resolution. This is an optional chart.

RAN MOD:

Random Modifier, a simple d100 roll to index against the critical difficulty or the situation for a fast answer.

SITUATION:

The severity/difficulty of the situation as GM rated.

SITUATION LEVEL

01	Not serious at all	07	Near deadly serious
02	Near minimally serious	08	Deadly serious
03	Minimally serious	09	Near terminally serious
04	Near serious	10	Terminally serious
05	Serious	XX	Terminal
06	Very serious		

SITUATION LEVEL

RANDOM MODIFIER	01	02	03	04	05	06	07	08	09	10	XX
01	a	a	a	a	b	b	b	b	c	c	c
02-03	a	a	a	b	b	b	b	c	c	c	c
04-05	a	a	b	b	b	b	c	c	c	c	d
06-10	a	b	b	b	b	c	c	c	c	d	d
11-20	b	b	b	b	c	c	c	c	d	d	d
21-30	b	b	b	c	c	c	c	d	d	d	d
31-40	b	b	c	c	c	c	d	d	d	d	e
41-50	b	c	c	c	c	d	d	d	d	e	e
51-60	c	c	c	c	d	d	d	d	e	e	e
61-70	c	c	c	d	d	d	d	e	e	e	e
71-80	c	c	d	d	d	d	e	e	e	f	f
81-90	c	d	d	d	d	e	e	e	f	f	f
91-95	d	d	d	e	e	e	f	f	f	g	g
96	d	d	e	e	e	f	f	f	g	g	h
97	d	e	e	e	e	f	f	g	g	h	h
98	e	e	f	f	g	g	h	h	i	i	j
99	f	f	g	g	h	h	i	i	j	j	k
00	g	g	h	h	i	i	j	j	k	k	k

Combat	Physical	Skill	Physical Feat	Damage	Con
Firearm	Dead	Piece Of Cake	Simple	NO	NO
HIT	Knockout	Simple	Easy	d4	d4
HIT	Stun	Easy	No Problem	d6	d6
HIT	Stun/Pin	With Work	With Determination	d10	d10
HIT	Connect	Adequate	With Difficulty	2d10	d10
GRAZE	Connect	Not Well	Badly	3d10	2d10
MISS	Graze	Shabby	Very Badly	5d10	2d10
MISS	Miss	Fail	Fail	8d10	3d10
MISS	Miss	Fail Badly	Bungle	12d10	3d10
FUMBLE	Stumble	Fail Miserably	Miserable Failure	16d10	4d10
MISFIRE	Fall	Fail Critically	Disastrous Failure	20d10	5d10
Stun	NO	Fine	Vehicles	Bystanders	Burn/Blast
NO	NO	OK	Fine	Didn't Care	Failed
NO	NO	Scratched	OK	OK	Failed
MILD	NO	Dinged	Scratched	Surprised	Minor
MILD	NO	Dented	Dented	Shocked	Flashed
HARD	LITTLE	Damaged	Damaged	Stunned	Minor
HARD	MINOR	Critical	Critical	Unconscious	Light
HEAVY	YES	Critical	Totalled	Hurt	Medium
COLD	YES	Pieces	Pieces	Wounded	Major
COLD	MAJOR	Junk	Little Pieces	Critical	Complete
DEAD	DEAD	Destroyed	Destroyed	Mostly Dead	Vaporized

CHARACTER NAME _____ WORLD _____

ETHNIC ORIGIN / RACE _____

OCCUPATION _____ Optional STN MILITARY RANK _____

SEX _____ AGE _____

HEIGHT _____ WEIGHT _____

HAIR _____ EYES _____

HANDED **R** or **L**

BLOOD TYPE
O A B AB POS NEG

STRENGTH RELATED DATA

PUNCH _____ KICK _____

LIGHT _____ MEDIUM _____

HEAVY _____ CARRY _____

DEAD LIFT _____ DRAG _____

MODIFIED ACCURACY BONUS

PISTOL _____ RIFLE _____

SMG _____ LAUNCHER _____

THROW _____ BOW _____

BLADE _____ BLASTER _____

PHYSICAL COMBAT

COMBAT ARTS STYLE _____

ACTIVE OFFENSE _____

ACTIVE DEFENSE _____

PASSIVE OFFENSE _____

PASSIVE DEFENSE _____

WRESTLING _____

PHYSICAL & MENTAL STATISTICS

STR _____ INT _____ THR _____ HPT (WBD) _____

CON _____ WIS _____ DOD _____ 75%

DEX _____ LCK _____ ACC _____ 50%

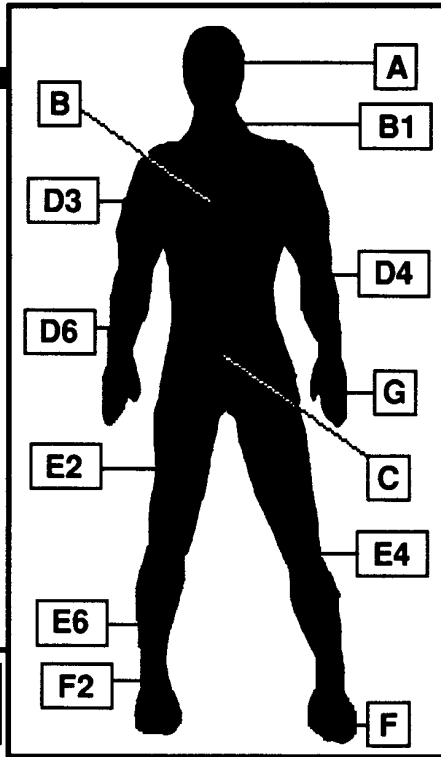
AGL _____ CRZ _____ STB _____ 25%

ADA _____ ATU _____ ZGA _____ EXP Next Lev _____
(FTL: 2448)

SKILL	LEV	SKILL	LEV
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

BODY GUIDE

AREA	TABLE	PAGE
Head	A	127
Neck	B1	128
Chest	B	128
U Arm	D3	130
Elbow	D4	130
L Arm	D6	130
Hand	G	130
Abdomen	C	129
Thigh	E2	131
Knee	E4	131
Calf	E6	131
Ankle	F2	131
Foot	F	131



ARMOR STOPS

	FA	LV	BL	EX
Hat				
Jacket				
Shirt				
Pants				
Under				
Socks				
Boots				

Special Armor

	FA	LV	BL	EX
Helmet				
Jacket				
Shirt				
Pants				
Under				
Socks				
Boots				

Equipment

Other

Weapon

ROF	AMO	PB	VS	SH	ME	LO	EX
ROL	CYC						
CAP	WTE	EFFECTIVE		EX+			
CIR	MIS						
HSM	KDM	SPC					

Vehicle Data

LENGTH:	TANK:	ARMOR	
WIDTH:	MPG:		Window:
HEIGHT:	RANGE:		Wheels:
SPEED:	WATER:		Top:
WEIGHT:	CREW:		Body:
CARGO:			

Vehicle Weapons

PSIONIC MANAGEMENT

Name _____

Talent Acquired By _____

Years of Study & Practice _____

Meditative Discipline _____

WKP

MCD

REC

TIME MODIFIERS	
Snap Use	-30
Half Time	-20
3/4 Time	-10
Full Time	n/a

(Also See Page 92)

DIFFICULTY MODS	
Real Easy	x1.25
Easy	x1.00
Average	x0.75
Tough	x0.50
Real Tough	x0.25
Near Impossible	x0.12

OTHER MODS	
Fresh, Healthy	+05
Very Healthy	+03
Healthy	+01
Sick	-03
-at 75% CON	-05
-at 50% CON	-10
-at 25% CON	-15
Shot	-25
Physically Abused	-15
Pain, Light	-05
Pain, Heavy	-10
Stun, Light	-15
Stun , Heavy	-40
In Shock	-30
Tired	-05
Pushed to Limit	-10
Affected by Drugs	-10
Tipsy	-05
Drunk	-20
Roaring Drunk	-40
Annoyance	
-General	-02
-Continued	-05
-Rampant	-08
-Total	-10
Forced Against Will	-05
Forced at Gunpoint	-10

(Also See Page 22)

PSI Talent	Level	Page
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Optional WKP Storage Device

Device _____

WKP _____

STATISTICS MODIFICATIONS			
STR	CON	DEX	AGL
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
WIZ	ADA	ATU	STB
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Home World:
 Colonies:
BIOLOGY:
 SIZ:
 GRA:
 LSP:
 SEX:
 GES:
 BIR:
 ENV:
 SLP:
 SML:
 VIS:
 TAS:
 TOU:
 HEA:
 VOI:
PSYCHOLOGY:
 TMP:
 MOT:

PERSONALITY AND VIEWS

ISCO:
 ICL:
 Family:
 Work:
 Play:
 Wealth:
 Justice:
 Honor:
 Humanity:
 Politics:
 Red Tape:
 Space:
 Warfare

SOCIETY	
CON:	
JOI:	
HRS:	
QHR:	
ATE:	
SPC:	
STF:	
REL:	
LANGUAGE	
	%
	%
	%
Other	%

SKILL TENDENCIES:

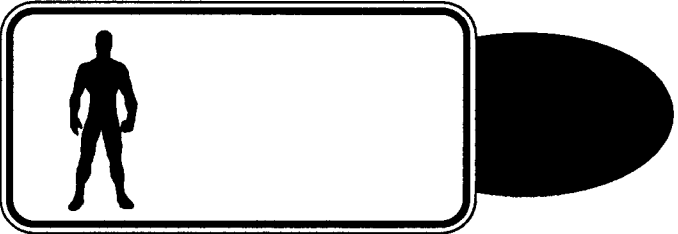
GOOD TRAITS:

BAD TRAITS:

USUALLY SAYING:

NAMING:

SIZE COMPARISON



NPC / ALIEN LOG

							-	
--	--	--	--	--	--	--	---	--

NAME			RACE				HPT	CON
STR	INT	THR	BODY ARMOR					
CON	WIS	DOD	TEMPER					
DEX	LCK	ACC	PERSONALITY					
AGL	CRZ	STB	Special Skills					
		ZGA						
Weapon			ADA	ATU	MCD	WKP		
Special Attacks			Special Resistance					

-180° -90° 0° 90° 180°

+90°
+45°
+0°
-45°
-90°

CONTINENT MAP

MOONS

SPECIAL LOCATIONS

_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Primary Landing Area

Because of the popularity of Many of the Tri Tac RPG's that have been out of print and the Requests by Gamers and Fans, Tri Tac Games has brought back the 1993 edition of FTL:2448 in this PDF Format.

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