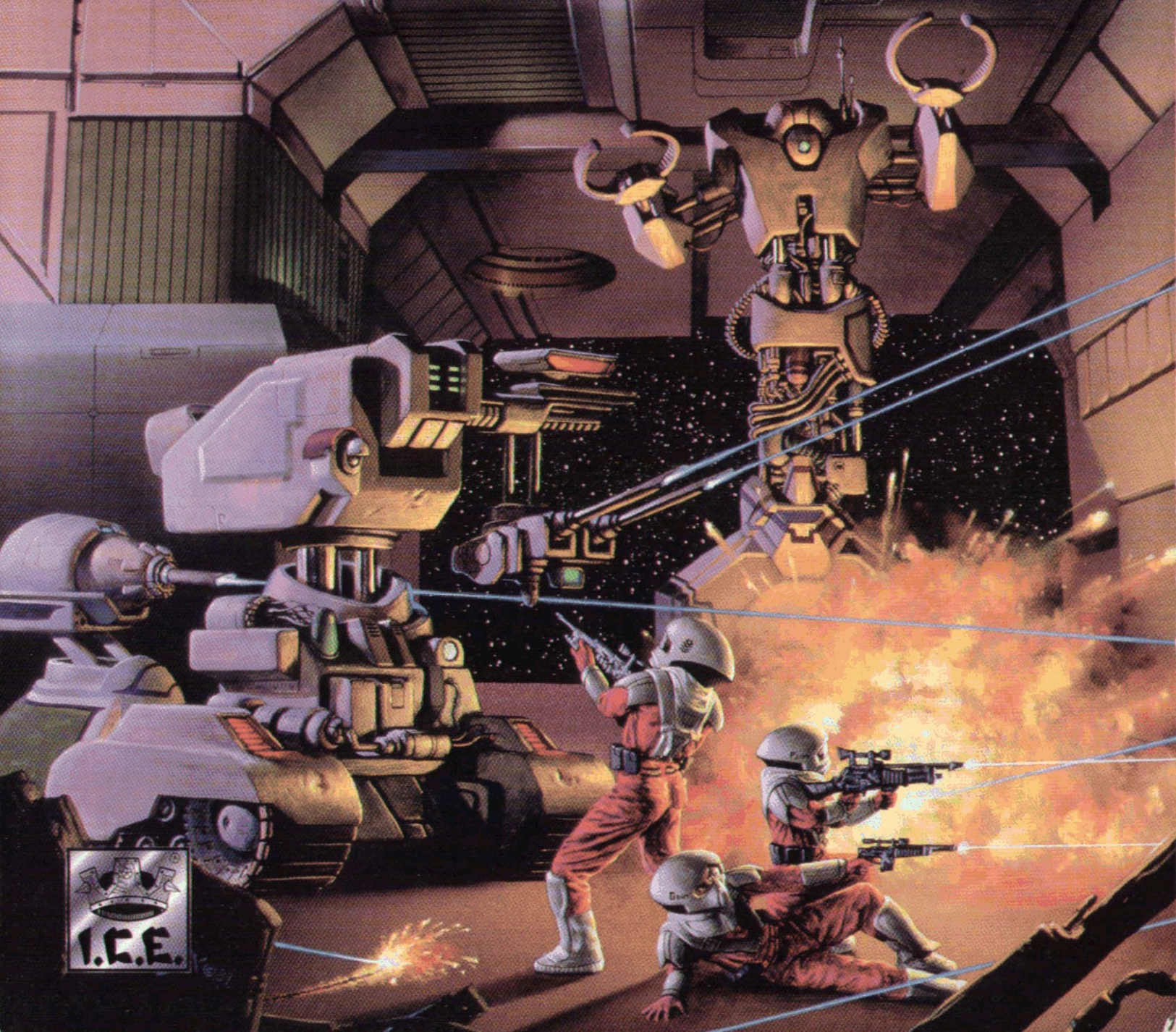


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Space Master *Companion II*™

**Advanced and Optional Rules for
Space Master™**



SPACE MASTER COMPANION II TM

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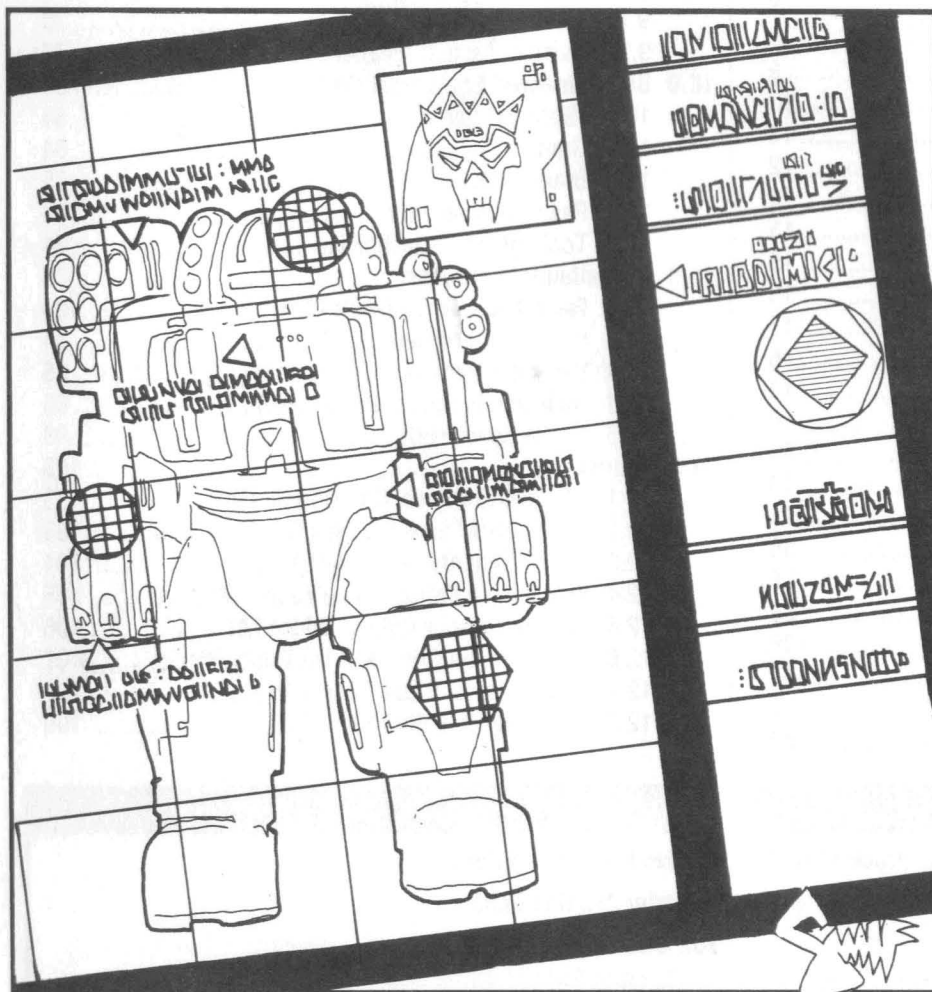
1.0 INTRODUCTION

Once again we find ourselves with a *Space Master Companion* full of new material, new ideas, and new options. As you can see by leafing through this book, it is quite different from its predecessor, *Space Master Companion I*.™ While that book focused primarily on new character creation options, professions and skills, this book focuses on new telepathy techniques, equipment, and science.

A book of new equipment is an easy thing for a GM to deal with. Each separate weapon or device can be allowed or discarded by the GM, at his whim. They are also easily altered to fit into various campaigns or power levels. If something seems unbalancing, the GM can make it very expensive, illegal to possess, or it can be disallowed altogether.

The entirely new psychic system, Psifire, will enhance any game, and make telepathy a totally unique ability. Unlike the current system, it is not at all like *Rolemaster*™ spell casting.

There's a lot contained in this book. Something to please just about every GM and player. Enjoy.



1.1 NOTATION

The material in *Space Master Companion II* often uses the standard referencing notion for ICE products.

SM — *Space Master*™ (2nd edition)

RM — *Rolemaster*

SpaMCo I — *Space Master Companion I*

PB — *Player Book* (in *SM*)

GMB — *GM's Book* (in *SM*)

TB — *Tech Book* (in *SM*)

RMCI — *Rolemaster Companion*™

1.2 REFERENCING ROLEMASTER PRODUCTS

Though this book is about *SM*, we must not forget that the game evolved from ICE's fantasy role playing game, *RM*. As a result, the material in *SpaMCo II* draws heavily on the series of *RMCs*, as well as the core *RM* rules. When an article section of this product references to an *RMC* installment or an *RM* book (like *Spell Law* or *Arms Law*), what are you supposed to do; particularly when you do not own the product in question? Well, first of all, do not panic!

We have found that most *SM* players know a lot about *RM*, because they got into that system first. But, if you are one of the few who play *SM* to the exclusion of *RM*, just ignore those sections that reference *RM* products. This is an optional rules compilation after all. Think of the *RM*-referenced rules as more optional than the others—you do not need them. If you think this is a cheap cop-out and that all relevant and previously published *RMC* material have been included in this product, imagine all of the other material we would have had to axe out of this product. It would have been quite a bit, and many consumers would have been upset about buying rehashed material.

So do not get mad thinking you are forced to go out and buy some other books just to get a few small references. Forget about them. Instead, focus on all the new material appearing here.

NOTE: For readability purposes, these rules use the standard masculine pronouns when referring to persons of uncertain gender. In such cases, these pronouns are intended to convey the meanings he/she, her/him, etc.

2.0 PROFESSIONS

2.1 COMBAT ENGINEER

This profession is practiced at overcoming obstacles to allow others, including himself, to get reach a destination. If there was a river to cross, the Combat Engineer would build a bridge or otherwise ford it. If there was a ship to board and capture, the Combat Engineer would ensure that that ship's bulkheads were taken down and his ship securely moored to it. He makes the best use of his immediate surrounding environment.

A Combat Engineer specializes in resourcefulness. They are also adept in demolitions, engineering and combat. When working alone, or in small groups, he excels at infiltration.

This profession receives +1 per level in all engineering skills and outdoor skills. The prime requisites of the Combat Engineer are Intuition and Reasoning.

All Technics and Astronautic skill costs are that of an Engineer. All Combat and General skill costs are those of the Explorer. All other primary and secondary skill costs are the same as for an Arms Tech.

2.2 BLACK MARKET MERCHANT/SMUGGLER

This profession deals with operating the 'ins and outs' of both local and interplanetary governments, customs agencies and especially in the black Market. A BM Merchant/Smuggler, whether working within the law or not, must have great foresight and knowledge about where he travels and who he deals with. His main goal in is to make money. He buys goods from manufacturers (or some other not-so-noble source), then sells them to others, at a profit. Though this sounds simple, the Merchant or Smuggler has many things to consider. For example,

- those people he deals with,
- the local government's stance on the goods he trades,
- the degree of local law enforcement,
- competition from other traders,
- who he hires and how loyal they really are.

In this profession, there are no joy rides. Often, careers are more dangerous than the Galactic Marines. Merchant/Smugglers receive +2 per level bonus to the following skills: Trading, Advertising, Propaganda and Administration. They also receive +1 per level bonus to N-Space Piloting and N-Space Astrogation. The prime requisites of this profession are Empathy and Presence.

All primary skills, except Combat and Weapon skills, are developed as an Explorer. Combat and Weapon skills are developed as an Entertainer. All other primary skills and secondary skills are developed as a Criminologist.





2.3 TINKERER/SCAVENGER

The Tinkerer/Scavenger specializes in jury-rigging mechanical and electrical components (i.e., unorthodox repairs and modifications). He also builds machines and other technological marvels from scratch, using whatever he can find as parts. When the proper material is not available, he finds whatever else will work instead.

This is a dangerous profession; one wrong wire connection and it could be time to retire, permanently. The Tinkerer/Scavenger's prime requisites are Intuition and Empathy. They receive +3 per level to all Gimmickry skill rolls and +1 per level to all mechanical, item and device skill rolls.

All Engineering and Technical skills are developed as a Systems Tech. All General skills are developed as a Criminologist. All other skills are developed as an Anarchist.

2.4 ANDROID/ROBOT HUNTER

One who is trained to both detect androids and find runaway robots (as well as how to properly dispose of both). The Android/Robot Hunter learns the psyche of these synthetic beings to better understand them and their motives. Those who excel at this profession can tell the difference between a human and android without the use of a scanner, though it takes time. They receive +1 per level when attempting to identify an android.

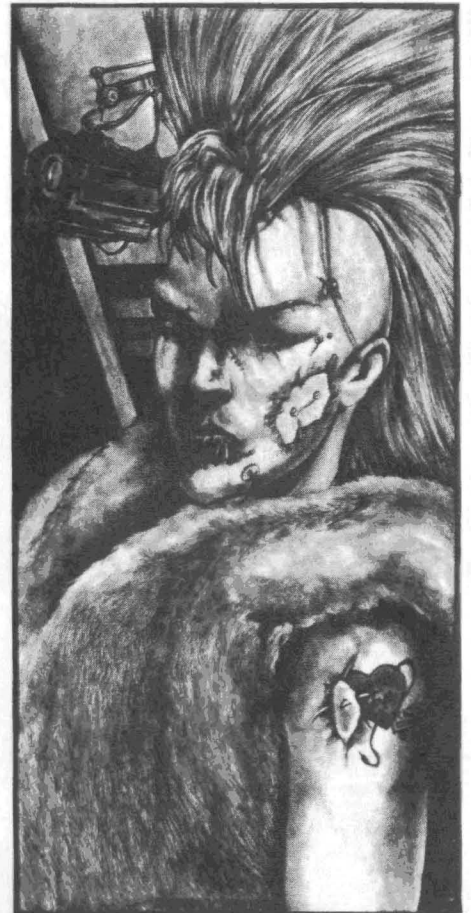
Part of this knowledge possessed by this profession deals with the understanding of how both androids and robots are constructed and how they work. Many build robots and androids as a hobby, others despise them and will have nothing to do with them, even "off-duty."

The prime requisites of an Android/Robot Hunter are Empathy and Memory. This profession receives +1 per level on all robots and cybernetics skill rolls. They buy Ambush at half cost for use against robots and androids.

The Android/Robot Hunter develops Perception, Engineering and Technical skills as an Investigator. All other skills are developed as a Law Enforcement Officer.

2.5 PSYCHOT

One who has driven both his mind and body to the edge with extreme dosages of all types of drugs and med tabs. The Psychot is not without reason, though. Through the medium of these narcotics, synthetic designer drugs, hallucinogens and other powerful medications, the Psychot pushes himself to greater physical and mental ability for limited durations.



Psychots have succeeded in super-human feats of strength, speed, damage resistance and psionic ability (with the proper drugs). Unfortunately, the life of a Psychot is extremely fast and extremely dangerous (history has never recorded one living past the age of twenty five). They live on a razor's edge, constantly fearing a lethal overdose or rehab.

The GM and the player may wish to discuss various addictions and special abilities gained from this dangerous and deadly drug abuse. This can be done by tailoring the Background Options to fit the character and the unique profession.

The prime requisites of the Psychot are Constitution and Self Discipline. They receive +3/level in Drug Tolerance and all Meditation skills. All Medical skills are developed as a Physician. Body Development is developed as an Armsman. All other skills are developed as an Anarchist.

2.6 **BOUNTY HUNTER**

One trained in the tracking, subduing and or elimination of others. The Bounty Hunter is no more than a semi- civilized mercenary working within society. No two bounty hunters work alike. Some have honor and care for their quarries, seeing them safely to their destination. Others only see those they seek as a month's rent or a needed repair for their space ship.

Bounty Hunters receive +2/level to all Tracking, Read Tracks and Subduing skill rolls.

All Combat and Perception skills are developed as an Explorer. All General and Subterfuge skills are developed as a Criminologist. All other skills are developed as an Armsman.



3.0 COMBAT OPTIONS

3.1 EXTENSIVE DAMAGE BEYOND MARK# LIMITATIONS

In a combat situation under **SM** rules, each weapon has an absolute limit for damage. That point which no roll can possibly exceed no matter how high the total roll. Five overloads made at point blank range, with a computerized +20 laser targeting system, still cannot exceed 8 hits and a type C critical when done with a Mark 1 projectile versus a completely unarmored foe, or even less for other armor types.

Any weapon should be allowed the opportunity to kill if damage can be done. If it is possible to do damage, it should be possible to do a critical, and if it is possible to do a critical, it should be possible to kill. Although it might be a lot more difficult to add additional damage and criticals, it should at least be possible. The following is a chart which will provide guidelines based on the amount of the total roll over the Mark limit, to determine additional damage and higher criticals. There are four columns: two for additional hits, and two for additional criticals. One column in each pair is a smoothed range, providing a greater degree of difficulty for lower Mark weapons. The second column may be used to simplify the entire procedure and use a standard adjustment for all weapon Mark#s.

The numbers (e.g., every 6, every 10, etc.) represent the total amount of the roll over the maximum Mark limit represented on the attack chart. For each full increment of this amount, damage is increased by one.

Example: A Bounty Hunter is attacking with a Mark 2 Small Projectile versus Armor Type 4. Based on the attack chart, the character cannot roll a total attack greater than 105. If the PC has a total roll of 185, this is a total of 80 greater than the 105 maximum. This would mean that an additional 10 concussion hits are sustained (80 divided by 8), and the critical will be increased by one severity level. Versus AT 4, at 105 the result is 11C. Therefore, the new result is a total of 21 hits and a D critical (21D). However, if the GM wanted to use the simple side, an additional 26 hits are sustained, and the critical is still increased by only one severity, (11C becomes 37D).

3.2 NATURAL STUNNER RESISTANCE

Stunners operate by pulsing electromagnetic radiation at their targets, and spreading throughout the nervous system from the point of impact. As the pulses spread, they tend to lose power and therefore lose effect. Because of this, a larger target tends to be less prone to stunner effects. The greater mass provides a larger volume through which

the electromagnetic radiation must be dispersed. With the same respect, smaller targets are more susceptible to the effects due to the smaller mass for dispersal.

To determine resistance, examine the character's natural body weight. The average weight range is that area in which there will be no modifiers. For humans, this range will be from 120 to 180 pounds. For every 20 pounds of natural body weight above this range, the PC will gain a natural stunner resistance of +5 to DB. (e.g., A PC with a natural body weight of 220 pounds will have +10 DB vs stunners).

However, anyone less than 120 pounds suffers an adverse effect. Although DB will remain unaffected, the damage incurred will be greater. For each 20 lbs less than the specified range, all critical results will be increased by one category, and hits will be increased by 10%. The DB will not be affected because the smaller person does not become easier to hit, just easier to hurt. However, for those larger folks, the natural resistance will be dropped by -5 for each Mark of stunners greater than 1. For example, a person of 220 lbs would have a +10 vs a Mark 1 stunner, but only +5 vs a Mark 2 stunner, and +0 vs a Mark 3 stunner. Although modifiers could be made for smaller PCs and larger powered stunners, why not give them a break, don't they suffer enough? However, if the GM insists on using such modifiers, it is suggested that with the higher powered stunners, only hits should continue to be modified. Otherwise, some little guy will always take an E stun critical every time he's winged by a Mark 5 stunner. For every Mark above 1, increase the hits by an additional 5%.

EXTENSIVE DAMAGE CHART

Mark level	Additional Hits		Additional Criticals	
	Smoothed	Simple	Smoothed	Simple
Mark I	every 10	every 3	every 70	every 50
Mark II	every 8	every 3	every 65	every 50
Mark III	every 6	every 3	every 60	every 50
Mark IV	every 5	every 3	every 55	every 50
Mark V	every 3	every 3	every 50	every 50



Example: A little guy, who has a natural body weight of 80 pounds, is hit by a Mark 3 Stunner. This PC is two brackets under the 120 lower limit. He will suffer an additional 10% hit increase for each increase in Mark level. (120 - 80 = 40 and 40 divided by 20 pounds = 2 brackets below lower limit. 2x the +5% increase is +10%.) However, the PC already suffers +10% vs the standard stunner. Therefore, the PC will now suffer a 20% increase in hits sustained by a Mark 3 stunner.

Such problems are reflected in an Encumbrance Modifier applied to attack rolls made with such weapons. (Refer to the Weapon Chart in Section 8.0). The list only shows the relatively compact tools (or tools which may have some movement around a base unit. e.g., Arc Welder depending on how powerful it is: there are no High Velocity Earth Drills, Jack Hammers, Heavy Industrial Equipment, or Mass Mining Equipment, etc.) Although there is no reason why modifiers and charts could not be determined for much larger weapons. However, some of the larger equipment might be more likely to be incorporated into *Armored Assault*, or perhaps *Star Strike* if the circumstances fit the situation.

3.3 POWERED TOOLS AND MELEE

Something which was completely overlooked in the *Tech Book's* combat material was the opportunity for using powered tools in combat. When times get desperate, and no normal weapon can be found, why not a truly devastating chainsaw if it is available? Powered tools, especially saws, become extremely scary when used in melee. However, they are not designed for combat use, the result being that they are very bulky and off-balance, not to mention just plain heavy!

3.4 VEHICULAR IMPACT

There are no guidelines for using a vehicle to injure a person, and hit and runs are not exactly uncommon. Some simple rules of thumb will help determine damage from such a situation. First of all, determine how fast a vehicle is going in miles per hour. This velocity will be the pilot's bonus on the combat chart. However, the target will get a maneuver to reduce the effects of the attack. The maneuver's difficulty will be determined by the velocity of the vehicle, and how many seconds the PC has to react before it collides with him.

Each second that the target character has to prepare for the vehicle, he may reduce the difficulty level by one category.

IMPACT AVOIDANCE CHART

Vehicle's Speed (kph)	Maneuver Difficulty
01-05	Routine
06-15	Easy
16-25	Light
26-50	Medium
51-70	Hard
71-100	Very Hard
101-130	Ext. Hard
131-200	Sheer Folly
201+	Absurd

Example: A character sees a vehicle round the corner, and he realizes that he is in danger when the engine races and the car accelerates. The vehicle approaches at 120 kilometers per hour (a +120 attack). This is an Extremely Hard Maneuver for the character to avoid being hit. However, the character has two seconds to prepare/run, reducing the difficulty level by 2 categories (bringing it down to a Hard Maneuver). He rolls on the Hard Maneuver Chart and the GM decides that it makes sense to add his Agility modifier to the roll as well. The total maneuver roll, with modifiers, is 78. On the Hard Maneuver column, this is a result of 50. That result from the Maneuver Chart is applied against the oncoming vehicle (that is, the character's DB is increased by 50).

All Vehicular Impacts are made on the Fall/Crush attack chart. If an attack results in multiple criticals, the primary critical is an Impact and the secondary is a Crush.

ARMS LAW VS SPACE MASTER ARMOR CHART

Weapon	Armor Tye																							
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Bare Fist	-0	-0	-0	-0	-0	-5	-5	-15	-20	-25	-30	-35	-25	-30	-30	-35	-35	-40	-45	-50	-80	-100	-110	-120
Battle Axe	-0	-0	-0	-0	-0	-0	-5	-5	-5	-5	-10	-15	-10	-15	-15	-20	-15	-20	-25	-30	-50	-60	-80	-100
Bola	-0	-0	-0	-0	-0	-5	-15	-20	-15	-20	-25	-30	-20	-25	-25	-30	-25	-30	-35	-40	-65	-90	-105	-115
Broad Sword	-0	-0	-0	-0	-0	-0	-5	-5	-5	-5	-10	-15	-10	-15	-15	-20	-15	-20	-25	-30	-55	-65	-75	-110
Club	-0	-0	-0	-0	-0	-5	-10	-10	-10	-15	-15	-20	-15	-15	-15	-20	-15	-20	-30	-35	-60	-80	-100	-115
Composite Bow	-0	-0	-0	-0	-5	-5	-15	-15	-15	-20	-20	-25	-20	-20	-20	-25	-20	-25	-35	-40	-60	-80	-100	-115
Dagger	-0	-5	-0	-0	-5	-10	-15	-20	-15	-20	-25	-30	-20	-25	-25	-30	-25	-30	-40	-45	-70	-100	-110	-120
Falchion	-0	-0	-0	-0	-5	-5	-10	-10	-10	-10	-15	-20	-10	-15	-15	-20	-15	-20	-30	-35	-55	-65	-75	-110
Flail	-0	-0	-0	-0	-0	-0	-5	-5	-5	-10	-10	-15	-10	-15	-15	-20	-15	-20	-30	-35	-50	-60	-80	-110
Hand Ax	-0	-5	-0	-0	-5	-10	-15	-15	-15	-20	-25	-30	-20	-25	-25	-30	-25	-30	-40	-45	-70	-90	-110	-120
Heavy Crossbow	-0	-0	-0	-0	-0	-0	-5	-5	-5	-5	-10	-15	-10	-15	-15	-20	-15	-20	-30	-35	-50	-75	-95	-105
Javelin	-0	-0	-0	-0	-0	-5	-10	-15	-10	-15	-15	-20	-15	-20	-20	-25	-20	-25	-40	-45	-70	-90	-110	-120
Lance	-0	-0	-0	-0	-0	-0	-10	-10	-10	-10	-15	-20	-15	-20	-20	-25	-20	-25	-35	-40	-65	-85	-105	-115
Light Crossbow	-0	-0	-0	-0	-5	-5	-10	-15	-10	-15	-20	-25	-20	-20	-20	-25	-20	-25	-35	-40	-55	-80	-100	-115
Long Bow	-0	-0	-0	-0	-0	-5	-10	-10	-10	-15	-15	-20	-15	-20	-20	-25	-20	-25	-30	-35	-55	-75	-95	-110
Mace	-0	-0	-0	-0	-0	-0	-5	-10	-5	-10	-15	-20	-10	-15	-15	-20	-15	-20	-35	-40	-55	-65	-85	-115
Main Gauche	-0	-5	-0	-0	-5	-10	-15	-20	-15	-20	-25	-30	-25	-30	-30	-35	-30	-35	-45	-50	-70	-100	-110	-120
Morning Star	-0	-0	-0	-0	-0	-0	-5	-5	-5	-10	-10	-15	-10	-15	-15	-20	-15	-20	-30	-35	-50	-60	-85	-115
Pole Arm	-0	-0	-0	-0	-5	-5	-10	-15	-10	-15	-15	-20	-15	-20	-20	-25	-20	-25	-40	-45	-65	-90	-110	-120
Quarterstaff	-0	-0	-0	-0	-0	-0	-10	-15	-10	-15	-15	-20	-15	-20	-20	-25	-20	-25	-35	-40	-65	-85	-105	-115
Rapier	-0	-0	-0	-0	-5	-5	-10	-15	-10	-15	-20	-25	-20	-25	-25	-30	-25	-30	-40	-45	-65	-95	-105	-115
Scimitar	-0	-0	-0	-0	-0	-5	-10	-10	-10	-15	-15	-20	-15	-20	-20	-25	-20	-25	-35	-40	-60	-70	-85	-105
Short Bow	-0	-0	-0	-0	-5	-5	-15	-20	-15	-25	-25	-30	-20	-25	-25	-30	-25	-30	-40	-45	-65	-85	-110	-120
Short Sword	-0	-0	-0	-0	-5	-10	-15	-15	-15	-20	-20	-25	-20	-25	-25	-30	-25	-30	-35	-40	-65	-80	-100	-115
Sling	-0	-0	-0	-0	-5	-10	-15	-20	-15	-20	-25	-30	-25	-25	-25	-35	-25	-30	-45	-50	-70	-100	-110	-120
Spear	-0	-0	-0	-0	-0	-5	-10	-15	-10	-15	-15	-20	-15	-20	-20	-25	-20	-25	-40	-45	-70	-90	-110	-115
2-Handed Sword	-0	-0	-0	-0	-0	-0	-5	-5	-5	-10	-10	-15	-10	-15	-15	-20	-15	-20	-30	-35	-55	-60	-75	-90
Warhammer	-0	-0	-0	-0	-0	-0	-5	-5	-5	-10	-10	-15	-10	-15	-15	-20	-15	-20	-30	-35	-55	-60	-75	-90
War Mattock	-0	-0	-0	-0	-0	-0	-5	-5	-5	-5	-10	-15	-10	-15	-15	-20	-15	-20	-30	-35	-50	-60	-70	-85
Whip	-0	-0	-0	-0	-5	-5	-10	-15	-10	-15	-20	-25	-20	-25	-25	-30	-25	-30	-45	-50	-75	-90	-110	-120

3.5 DAMAGE TO PERSONAL EQUIPMENT

Something that never seems to have much attention paid to it is whether or not personal equipment is damaged when injuries are inflicted on a character. For example., if a character is wearing headgear and takes a shot to the head, is the gear destroyed or not? If the location of the equipment on the body is known, and a hit is made in an area with some equipment, there should be a chance that the equipment is destroyed. Use the number of hits afflicted on that area as the base percent chance of destroying the equipment, and modify it as follows: very fragile = +50, fragile = +25, non-fragile = +0, lightly armored or heavy duty = -15, very heavy duty = -40.

3.6 WHAT OF ARMS LAW?

RM consists of three books in its boxed set. One of the three books is **AL** and consists of the attack charts for all of the melee weapons. When the melee charts were converted into **SM**, somehow they were all squeezed into a single chart. This is very unfortunate, because the system lost the variations of weapon vs armor types. The benefits of one weapon over another became obsolete. However, in many situations, one weapon would serve much better than another. For example, would you rather use a dagger or a war mattock versus a heavily armored foe? The war mattock has a much better reputation for ripping through armor than does a dagger. If a dagger happens to be the only weapon available, then good luck! The following chart is designed to help incorporate the weapons of **RM** into

SM. Most of the weapons have deficiencies, especially in the higher armor types. However, this is due to the highly superior materials and construction of those types of armor. However, superior materials can also be used to make weapons. The modifier for superior materials should be left up to the GM, but it is advised not to exceed +20 on any weapon.

To use the following chart, **AL** must be available. Turn to the appropriate chart for the weapon being used. Cross reference the Weapon Chart with the Armor Type of the foe on the following chart. The modifier there is added to the attack roll. The resulting total is cross-indexed on the attack chart in **AL** to determine damage inflicted. The modifiers on this chart are only used on the attack roll, not critical results rolls, etc. Variations in criticals will come naturally from the modifiers being added onto the combat rolls. This will not reduce the critical roll itself, but will tend to reduce critical class.

3.7 MELEE AND TWO TARGETS

Occasionally, characters may find themselves facing the power axes of two foes. Fighting both opponents can be very dangerous. If the character is exceptionally skilled with his weapon, he could effectively attack both of the opponents with a single sweep of the sword (or whichever potential weapon he finds available). However, such an attempt does not go without restrictions or modifiers.

First, the weapon must be of an appropriate length to allow a sweep which could effectively attack two people. Obvious examples would be pole arms, and two handed weapons. Some of the longer, one-handed weapons may also be employed for such uses (e.g., long sword, broad sword, bastard sword, etc.) but with additional modifiers. If the GM truly feels it is possible to use even smaller weapons (e.g., short swords, daggers, main gauches, etc.), do so with an additional modifier of -30 for both attacks. All of the modifiers are cumulative.

Second, the opponents must be standing in adjacent facings (i.e. standing next to each other). Flank and rear opponents cannot be attacked in this manner. Before attacking, the PC must designate his intention to attack both foes simultaneously. The PC must make separate attack rolls versus each of the foes. The attack versus the first opponent is made at -25, while the second attack is made at -50.

Example: *Melissa, while visiting a primitive culture similar to Medieval Earth, is attacked by two bandits. She is armed with a pole arm and has an OB of +70. One opponent is at her front, and the other at her flank. This means that she will be +45 for the first opponent and +20 for the second.*

One problem with attacks of this sort is that the second attack can be dramatically decreased by the results of the first attack. An exceptionally successful attack on the first foe can absorb a lot of the force and impact that would have carried into the second. This is reflected by additional modifiers based on the damage inflicted by the first attack. The first of the modifiers to consider

is that of the concussion hits not resulting from a roll on a critical chart.) This result is divided by two, and the result is used as a negative modifier for the second attack. Round down to give the attacker that ever so slight benefit from odd numbers. For example, a result of 17 hits would give a -8 to the second attack.

Also, critical results achieved in the first attack will affect the second strike. Every level of a critical result will decrease the second attack by -10 (e.g., an A crit is -10, a B is -20, a C is -30, etc.)

Results from within the critical will also have a negative result on the second strike. For each additional concussion hit achieved with a critical, there is a -1 modifier. For example, if a critical gives an additional 10 hits to the opponent, the second attack will be modified by another -10 to the total. In addition, bleeding is worth -5 per hit (e.g., a critical resulting in bleeding at 3 hits per round yields an extra -15 to the attack total). Each round of stun will give a -5 to the second attack. Each round of "stunned and

unable to parry" is worth -10. Broken bones will result in -15 for the second attack total. Any critical result that gives an instant death or comatose conditions will result in -20 to second attack and lowering the second critical result by 1 level. These modifiers no doubt seem many and confusing, and will be laid out in a chart for easy reference.

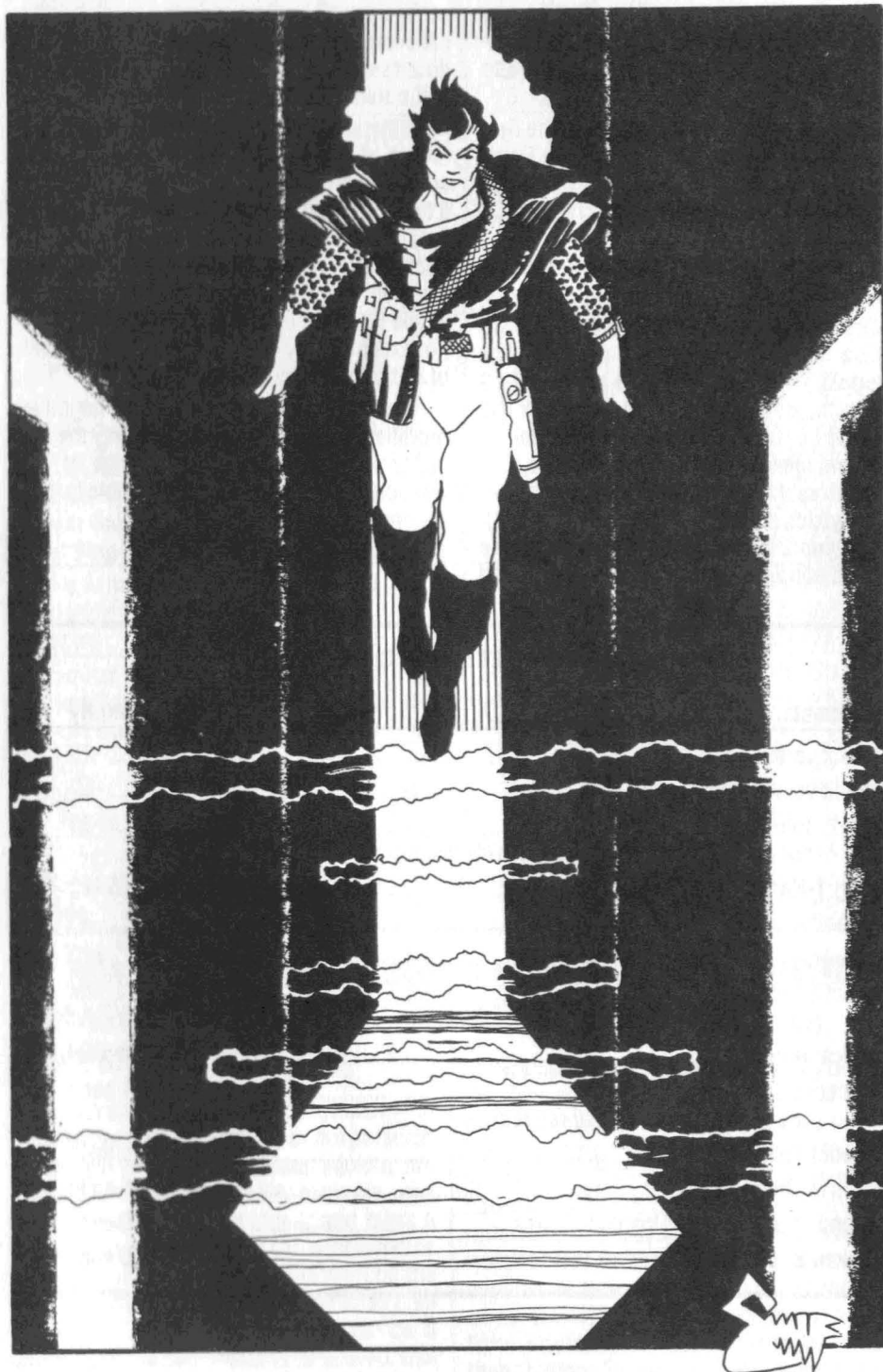
With respect to criticals, some might ask "What about those high-ranking criticals which yield no real damage?" For example, a type E critical where the attacker is unfortunate enough roll a very low number. In such a case, it is still accepted that the blow was very direct and solid. After all, it did do a type E critical even if the critical itself was not exceptionally effective. The -10 per level of critical severity should stand.

It should be noted that all the negative modifiers could result in modifying the attack roll down to the fumble range of the weapon! This would result in a fumble for the second attack.

TWO TARGET MELEE CHART

Circumstance	Penalty
Attack versus First Foe	-25
Attack versus Second Foe	-50
Short, one-handed weapons	-30
<i>(not advised for use, only under GM discretion)</i>	
Long 1-Handed weapons	-10
2-Handed weapons	+0
Pole Arms	+10
Direct Concussion Hits	-1 for each 2 hits
<i>(i.e., directly from attack chart)</i>	
Critical Result	-10 for each crit level
Indirect Concussion Hits	-1 each
<i>(i.e., derived from critical results)</i>	
Bleeding hits per round	-5 each
Rounds Stunned	-5 each
Rounds Stunned and Unable to Parry	-10 each
Broken Bones	-15 each

4.0 PSION OPTIONS



4.1 PSIONS FOR THE NON-TELEPATH

According to the first printing of the *Player Book*, only Telepaths (True and Semi) are able to learn psion lists. However, there is a basic philosophy which states, "All beings of higher intelligence have a Telepathic potential, whether or not they realize this and opt to develop it is specific to the individual." All of the non-telepathic professions should have the opportunity to develop a psionic talent, but at great difficulty. Telepaths, on the other hand, have the advantage that Psionics are their profession, and they are not restricted by the guidelines of this section. In this section, there will be information for

- 1) the availability of Psion lists,
- 2) power points and how they are used,
- 3) the development of skill with Psionics,
- 4) side effects of psionic use,
- 5) some possible uses of *Spell Law*, and
- 6) a general comparison between the non-telepaths and telepaths.

All of this will be discussed in relation to the non-telepath and the development of psionic talents.

How does a non-telepathic character actually become a psion user? There are two different ways this could be done. First, the player could just decide that the talents are worth the time and effort to develop and begin training by spending development points. Alternatively, the player might roll on the Mental Attribute Background Chart and generate the Psionic attribute. Once this is done, a field of talents must be determined. This also may be done in two ways (this should be GM moderated).

- 1) The GM may allow the character to have a selection of his liking.
- 2) The GM might have the player roll on the Psionic Accessory Chart from the Background section. This would result in a random talent. However, some of the skills on that list do not require any actual development in Psionics.

Note: If the PC rolls on the Psionic Accessory chart and generates a minor ability (those which do not require any skill development), there should also be another field of talents which the character may develop in the normal manner. For example, if a character rolled a result of *Visions*. This is a minor ability and re-

quires no skill development. If the GM decides that the PC may keep this talent, the Player should be able to select another area in which he can develop true Psionic skills.

Power points are handled quite differently from the normal Telepath. The Non-telepath must develop his power points from scratch, unlike the True and Semi Telepaths who naturally gain power points as they gain experience. The non-telepathic character must develop the skill Psionic Training to have any power points at all. The total skill rank bonus of Psionic Training is the percent of the "Power Points per level" that would be gained if the character were a telepath.

The non-telepath is restricted as to which types (picks or portions) of lists he may develop. Their power is limited, and they are unable to rise to the higher and more powerful forms of the art. The non-telepath may only develop "A" and "C" portions of a list under their talent. (an "A" portion being levels 1-5 and a "C" portion being levels 6-10). However, the character must be level 5 before he can achieve the development of a "C" portion of a list. If the GM feels it is appropriate, he may allow the character to develop portions 10-15 and 16-20 after attaining 20th level. However, the character should never be allowed to go beyond the 20th level psion on the list.

Non-telepaths are not only restricted with the types of lists they may develop, but also by the field which the character chooses. True Telepaths and Semi Telepaths are able to develop psion lists outside the realm of their base lists. The non-telepath, on the other hand, is strictly limited to his base lists. Under normal conditions, the character will never be able to develop a list outside of his base field. Abnormal conditions could constitute a permanent memory loss, which would allow the character to start all over.

One of the less fortunate facts about non-telepaths using psionics is that there are often side effects. These may include anything from a nose bleed to a severe migraine headache. The following chart is for reference whenever a non-telepathic character casts a psion. The player must make a roll on the following chart. This roll is not open-ended, but modifiers involving the casting are applied. (e.g., snap casting, fewer rounds of preparation, distractions, etc.) The player adds his SD modifier to the result to determine a total for the chart. This chart may be used in one of two ways, based on the GM's preference.

Option 1: The GM may have the player make a roll on this chart for every psion cast, resulting in a different side effect every time, or

Option 2: The GM may have the player roll on this chart once, when he first begins developing his psionic skills, and use the same result as an ongoing side effect. The player would then make a SD check to see if the side effect is avoided or not. If the SD check is failed, the player already knows what is going to happen and will also know what sort of risk he will be taking by casting.

PSIONIC SIDE EFFECTS

Roll	Result
01-05	Stroke: The character drops to the floor unconscious, the victim of a severe stroke. Medical attention will heal him.
06-15	Faints: The character is out cold on the floor. If not helped, he will come around on his own in a few minutes.
16-25	Nausea: The character doubles over and heaves his last meal onto the floor. Not only is it humiliating, it's quite disgusting.
26-35	Migraine Headache: The character suffers a horrible migraine consisting of severe pain and tunnel vision (-50 to Perception). Until it subsides (in 5-50 minutes), the character will perform all other maneuvers at -40.
36-45	Tunnel Vision: The character's vision becomes a long, black tunnel, resulting in -50 to Perception, and -15 for maneuvers.
46-55	Dizziness: The character is stricken with a severe dizziness spell and will perform all maneuvers at -40 until it passes (in 1-5 minutes).
56-65	Disorientation: The character is disoriented for 2-5 minutes and will perform all maneuvers at -20 until he overcomes it.
66-75	Headaches: The character suffers a headache for 10-60 minutes. As a result, he will suffer -10 for all maneuvers attempted during this time.
76-85	Itching: The character's body is covered with an irritating itch for 2-5 rounds while the character is at -5 for all actions.
86-95	Nosebleeds: The character's nose begins a steady flow of blood. Although this is not very severe (lose 1 hit every minute), it is rather noticeable. A First Aid skill check (-20 if attempted by the caster) will cease the flow of the blood in 1-10 rounds. Otherwise, it will stop on its own after approximately 2-20 rounds.
96+	Fine: Other than some tingling sensations through the PC's hands and scalp, the PC feels fine. There are no actual side effects.

Note: The GM may want to use this chart for a side effect on a target of a non-directed Psion.

What about SL from **RM**? There is a large collection of spells and possible psions that are not used in **Space Master**. Well, some of them have been put to use on the Psionic Accessory Chart (*SpaMCo I*) for Background Options. If the GM wishes to use SL, it would in fact be very easy to do.

The Professional Base Lists can be used as other fields of study, and the open and closed lists may be used by the True and Semi Telepaths as additional accessory lists. However, the open and closed lists may not be used as base lists. Closed lists may only be available to True Telepaths, while open Lists are available to Semi and True Telepaths. Non-telepaths may not have access to anything outside their base lists and will not be able to make use of any of the open or closed lists. For some examples, refer to the Psionic Accessory Chart in *SpaMCo I*.

Here is a summary of the differences between the True/Semi Telepaths and the Non-Telepath.

- 1) The True and Semi Telepaths are able to develop psion lists outside of their base field; Non-telepaths cannot.
- 2) True and Semi Telepaths have innate power points (i.e. they come naturally as the PC gains experience), the Non-telepath must actually develop them.
- 3) While the True and Semi Telepaths skill development consists of developing the psion list, the non-telepath's consists of developing Psionic Training, Power Point Development, and Psion lists.
- 4) The non-telepath is likely to suffer side effects from using psionics, while the True and Semi Telepath will not.
- 5) If SL is used, the True and Semi Telepaths will have access to the Open and Closed lists to a certain degree, where non-telepaths will not.

4.2 PSION/SPELL LEVEL VARIABILITY

There are many rules regarding the casting of psions, many of which restrict casting to one degree or another. One says that no character may ever cast a psion of higher level than he is himself. However, with guidelines for overcasting, this becomes feasible only when making the chore that much more difficult for the character (which is to be expected). Refer to the Overcasting chart (*SpaMCo I*) for details. This section will attempt to describe a way in which a character may increase the level of a spell which he already has normal casting skills with. For example, a character is second level and wishes to cast a second level spell, but wants it to have the wallop of a fifth level spell. Well, by investing more power points in the casting, this could be done. As expected, this makes casting more difficult and will be handled differently for Telepaths and Non Telepaths.

First of all, it must be made clear that there are two different types of psions, Attack and Non Attack. Attack psions are those which actually receive an attack roll on the appropriate attack chart. (e.g. Shock Bolt, Lightning Bolt, Fire Ball, etc.) Victims of such a psion will not normally receive a RR vs the effects. Non Attack psions are those which the victim does receive a RR vs the effects. Each of these two psion forms will be handled differently in this section.

Where attack psions are concerned, there really is not a level to be concerned with. After all, it is not the level of the psion which stirs up the fear of the victim, it is the concussion hits which the psion could incur on the poor devil. For an attack psion of X level, every additional power point equal to X invested above and beyond the required expenditure, will multiply the concussion hits incurred.

Example: A character is casting a level 5 Energy Bolt and wants to do twice the normal damage. He must use 10 PP for this particular situation.

However, there is a restriction to using PPs in this manner. The character cannot spend more PPs than he has in levels. In the previous situation, the casting character would have to be at least 10th level, 15th level to triple the damage, etc. Also, the psion is still limited to all restrictions applied at the psion's original level (e.g. Energy Bolt 5 is a Mark 2 attack, and no matter how many PPs are put into the casting, it will still be a Mark 2 attack).

Note: Critical results of modified attack psions remain unaffected. Only the actual concussion hits are altered. Therefore, an attack result yielding 10B (at 3x damage) would tally out to a total of 30 hits and still a B crit.

The same type of variability may be applied to Non-Attack psions. Modification of a Non-Attack psion results in a higher level of effect (for the RR purposes). For a Telepath to raise the level of effect for a psion, he must simply put one more PP into the casting for each level increase.

Example: A Telepath character wants to cast a 3rd level psion but wants his victim to resist it as if it were a 5th level psion. He must only put 2 additional PPs into the casting (level 3 + 2 extra PP).

The psion will still be limited to the results of the psion which was originally modified. For example, if a PC is casting a 2nd level Pain, from the *Thought into Pain* list, and wants to put 5 extra PPs into the psion (giving it a 7th level effect), the caster could not affect three targets like the level seven Pain III.

Non Telepaths on the other hand, have a much more difficult time doing this type of modification. For every full multiple of normally needed PPs invested in the casting, the level of effect will be increased by 1. For example, if a non telepathic character wants to cast a 3rd level psion, but wants to have a 5th level of effect, he must invest a total of 9 PPs in the casting.

Using this system of modification, the total number of power points used is the casting level of the psion. This becomes a little confusing when dealing with Non Telepaths raising the level of non attack psions. In such a case, there are two levels to deal with, the casting level and the level of effect. For example, in the situation described above, the casting level is 9 (that level which the character must actually cast for successful results) and the level of effect is 5. If the casting level ever exceeds the character's experience level, refer to the Overcasting chart to determine the penalties for overcasting.

4.3 EXTRAORDINARY PSION FAILURE

What about those fools who dare to tamper with the powers of psionics and seem to suffer no consequences for abusing the system? Surely you know the type, or someday will. These are the characters who overcast at whim, and will not prep psions for a normal period of time (i.e., less rounds, snap casting, etc.), invest additional PPs, and even when failing such an attempt seem to suffer no worse than a character casting with utmost caution. For example, a character wants to cast a psion which is 2 levels higher than himself, and also invest 8 additional PPs. Overcasting by 2 levels is a 25% chance of failure, plus 8 extra PPs increases the casting level to a full 10 levels above the caster; for a 75% chance of failure. If this character rolls a 10 for successful casting, he would roll an "unmodified roll" on the Psion Failure chart; the same procedure used by a character casting a psion two levels lower than himself, taking the full amount of preparation time. Such workings take the threat out of trying outrageously stupid stunts.

It seems that something should be done to remedy this situation. Instead of making an unmodified roll on the Psion Failure chart, one modification should be applied. This modification is to be the amount of the failure made by the character. This would mean that in the earlier situation with a 75% chance of failure, and rolling a 10, the Psion Failure result would be rolled at +65 (i.e. the difference between the chance of failure and actual roll). Because this type of modification opens up a much wider range of results than is available on the Space Master Psion Failure chart (maximum result of 120), use the Spell Failure charts from *SL* for reference, with a maximum result of 301+. If employing this modification in a **SM** Campaign, these charts will be much more effective with some of the larger numbers possible.

4.4 OPTIONAL PSION LISTS

FIELD OF ALTERATION

MASS MASTERY

- | | |
|-----|------------------------|
| 1) | Alter Sense |
| 2) | Excite * c |
| 3) | Density Control * |
| 4) | Warp |
| 5) | Magnetize |
| 6) | Alter Sense III |
| 7) | Bewilder * |
| 8) | Density Control II * |
| 9) | Mass Combine |
| 10) | Warp V |
| 11) | Alter Sense V |
| 12) | Bewilder III * |
| 13) | Mass Combine X |
| 14) | Warp X |
| 15) | Density Control X * |
| 20) | Density Control True * |
| 25) | Bewilder True * |
| 30) | Warp True |
| 50) | Mass Master |

MASS MASTERY

Note: *Mass Mastery deals with the control of matter. The GM should note that some of these psions would not work in a vacuum, where no matter is available for manipulation.*

- 1) **Alter Sense** (F) **D: P R:** 5m/level Allows caster to alter one sense characteristic (e.g., flavor, color, texture, odor) of one object of a mass no greater than 30 kg/level. Caster must be able to see the object.
- 2) **Excite** (F*) **D: C R:** 5m/level Causes excitement of molecules within a 1 cubic meter region of space, giving off dim illumination (5m radius) and a loud hum, making hearing perception rolls *Extremely Hard* (-30) in a 10m radius.

- 3) **Density Control** (U*) **D: 3 rnd/level R: S** Caster can harden skin by increasing his/her density. Gives caster AT3 and +10 OB with all unarmed melee attacks, and caster's mass/weight is doubled.

- 4) **Warp** (F) **D: P R:** 5m/level Allows caster to twist, bend, or stretch one inorganic object, rendering it useless. When the Telepath attempts to use this psion on an object, the GM assigns a 'strength level' to the object, based on its rigidity. The strength level is an integer between 1 and 10 inclusive (strength level 1 is the least rigid; 10 is the most rigid). The object makes a Resistance Roll at its strength level against the psion. If this fails the psion is successful. Object mass is limited to 10 kg/level. Note that the caster does not make an attack roll or use the Directed Psion skill, but Psion Attack Roll Modifiers (*Player Book*, pg. 95) do apply.

- 5) **Magnetize** (F) **D: P R:** T Caster may alter the magnetic field of one object with the following limitations.

A. Object must be magnetically encoded or otherwise capable of holding a magnetic charge. E.g., an iron bar or computer storage disk could be affected by this psion, while a plastic pistol or living organism could not.

B. Caster must touch the specific object to be magnetized. Thus a caster could not place his/her hand on the surface of a huge computer and magnetize the storage disks buried deep within components and insulation.

C. The GM can prevent abuse of this psion in computer facilities by recalling that laser technology is often preferred over magnetic encoding for data storage/retrieval.

- 6) **Alter Sense III** (F) As *Alter Sense*, except the caster may alter a total of three properties in as many as three objects. I.e., the caster may not alter three properties in each of three objects, he/she might alter two properties in one object and one property in another object.

- 7) **Bewilder** (F*) **D: — R:** 5m/level By exciting molecules close to the sense organs of an enemy, the caster creates a stunning burst of light and sound. The caster makes an attack roll on the Psion Attack Chart, adding his/her bonus in Directed Psion. The target must make a Resistance Roll and is stunned for 1 rnd/10% failure.

- 8) **Density Control II** (U*) As *Density Control*, except caster is AT 4, and unarmed melee attack are made at +20 to OB. Caster's mass/weight is tripled.

- 9) **Mass Combine** (U) **D: V R: S** Allows caster to cast 6 levels of psions on this list at once.

Example: *Larn, a budding Telepath, wishes to surprise an opponent in a dark warehouse. He casts Mass Combine and decides to use the Excite, Density Control, and Alter Sense psions. On the following round, his Excite and Density Control psions take effect, and the Alter Sense begins. Two rounds later the Alter Sense will be complete. Note that Larn does not need to concentrate on his Combined psions after the round his Mass Combine takes effect.*

- 10) **Warp V** (F) As *Warp*, except 5 objects may be affected.

- 11) **Alter Sense V** (F) As *Alter Sense*, except a combination of 5 objects/properties may be altered.

- 12) **Bewilder III** (F*) As *Bewilder*, except the caster can affect 3 targets (A separate attack roll is made for each target.).

- 13) **Mass Combine XII** (U) As *Mass Combine*, except the caster may use 12 levels of psions.

- 14) **Warp X** (F) As *Warp*, except caster may affect 10 objects.

- 15) **Density Control III** (U*) As *Density Control*, except caster is AT7 and receives +30 OB with weaponless melee attacks. Caster's mass/weight is quadrupled.

- 20) **Density Control True** (U*) As *Density Control*, except caster is AT8 and receives +50 OB with weaponless melee attacks. Caster's mass/weight is quintupled.

- 25) **Bewilder True** (F*) As *Bewilder*, except caster creates a brilliant, loud flash which stuns all within a 10m radius for 1rnd/10% Resistance Roll failure.

- 30) **Warp True** (F) As *Warp*, except caster may affect 15 objects, and range is 10m/level.

- 50) **Mass Master** (U*) **D: 5 rnds/level R: S** After casting this psion, the Telepath may freely cast any other psions on this list.

FIELD OF SELF MASTERY

PSION DISCIPLINE

- 1) Extend
- 2) Continuance
- 3) Mind's Reach *
- 4) Endure
- 5) Continuance II
- 6) Extend III
- 7) Multiply
- 8) Mind's Reach X *
- 9) Parallel
- 10) Endure III
- 11) Extend V
- 12) Multiply III
- 13) Parallel III
- 14) Endure V
- 15) Mind's Reach True *
- 20) Extend True
- 25) Multiply True
- 30) Endure True
- 50) Psion Master

PSION DISCIPLINE

Note: *Psion Discipline involves increasing the level of organization in the Telepath's mind. The GM should monitor the use of these psions carefully.*

- 1) **Extend** (U) **D:** 3 rnds **R:** S Allows caster to double the range of any one psion cast within three rounds after this psion is cast.
- 2) **Continuance** (U) **D:** 1 rnd/level **R:** S When this psion is cast, the Telepath may cast another psion within 1 rnd/level whose normal duration is Concentration, and that psion will last 5 rounds after concentration ceases.
- 3) **Mind's Reach** (U*) **D:** 1 rnd/level **R:** S Allows caster to change the range of one psion (cast within 1 rnd/level of *Mind's Reach*) from Touch to 1 meter. The GM should determine which psions (if any) are unaffected by *Mind's Reach* due to their special nature.
- 4) **Endure** (U) **D:** 1 rnd/level **R:** S Caster may double the duration of any one psion cast within 1 rnd/level.
- 5) **Continuance II** (U) As *Continuance*, except the affected psion will last 10 rounds after concentration ceases.
- 6) **Extend III** (U) As *Extend*, except range of the affected psion is tripled.

- 7) **Multiply** (U) **D:** 1 rnd/level **R:** S Allows caster to modify one psion (cast within 1 rnd/level) that normally affects one target such that it affects two targets.
- 8) **Mind's Reach X** (U*) As *Mind's Reach*, except range is increased from touch to 10 meters.
- 9) **Parallel** (U) **D:** 1 rnd/level **R:** S Caster splits his/her concentration into two distinct 'psion pools' such that he/she may prepare and cast two psions at once, but they must be cast within 1 rnd/level of *Parallel*. Further, though the caster retains 100% activity after he/she casts *Parallel*, any disruption of the caster's concentration from an outside source (including damage from an attack, extremely loud noises, etc.) between the round that *Parallel* is cast and the round the psions take effect (inclusive) will cause the caster to make an open-ended roll, adding his/her SD bonus and subtracting a modifier determined by the GM based on the severity of the distraction (e.g., -20 per level of critical severity). If the modified roll does not exceed 100, the psions do not take effect, and the power points for *Parallel* are still lost. Note that the psions affected by *Parallel* must have the same preparation time; the caster could not use *Parallel* with one psion that is instantaneous and another that requires two rounds of preparation.

- 10) **Endure III** (U) As *Endure*, except caster may triple the duration of the affected psion.
- 11) **Extend V** (U) As *Extend*, except range of the affected psion is multiplied by 5.
- 12) **Multiply III** (U) As *Multiply*, except the affected psion may be applied against 3 targets instead of one.
- 13) **Parallel III** (U) As *Parallel*, except the caster may cast three psions at once.
- 14) **Endure V** (U) As *Endure*, except caster may multiply the duration of the affected psion by 5.
- 15) **Mind's Reach True** (U*) As *Mind's Reach*, except range is increased from touch to 5m/level.
- 20) **Extend True** (U) As *Extend*, except range of the affected psion is multiplied by 10.
- 25) **Multiply True** (U) As *Multiply*, except the affected psion may be applied against 5 targets instead of one.
- 30) **Endure True** (U) As *Endure*, except caster may multiply the duration of the affected psion by 10.
- 50) **Psion Master** (U*) **D:** 1 rnd/level **R:** S After casting this psion the Telepath may freely cast any other psions on this list.



5.0

PSIFIRE

Psifire is an alternative system to the existing *Space Master* Psion system. It describes Psychic Powers in terms of the existing Skill Rank system. The various skill/abilities are called a Psychic Discipline. Disciplines are developed as normal skills. The term rank (equal to one development in a skill) is used as a measure of the development and versatility that a Psychic has achieved with a particular Discipline. There are no resistance rolls in this system; everything a Psychic attempts is resolved as a maneuver. There are no Semi-professions. If a player decides to be "psychic", he chooses to be so and develops his character accordingly in addition all demands of his chosen profession.

WARNING: This system drastically changes the way that psionics work in a campaign! It is suggested that this system NOT be used with the original system for psions.

5.1

DETERMINING DISCIPLINES

Psychic characters are able to develop a certain number of Disciplines based upon the temporary value of their SD. See table below. The table shows the total number of disciplines a character can have.

DISCIPLINE DEVELOPMENT CHART

Temporary SD	Disciplines Available
75-89	1
90-94	2
95-97	3
98-99	4
100	5
101	6
102	7
103	8

DISCIPLINE LEVELS

A Psychic with more than one Discipline must decide which will be his primary or Level 0 Discipline, and then continue to organize the remaining Disciplines as Levels 1, 2, 3 etc. Low level Disciplines can be developed to greater degrees than higher level Disciplines.

Disc. Level	Dev. Cost	Optional Dev. Cost
0	1/2	1*
1	1/3	2*
2	1/4	3*
3	1/5	4*
4	1/6	5*
5	1/7	6*
6	1/8	7*
7	1/9	8*
8	1/10	9*
9	15	15
10	20	20
11+	+5	+5

Example: *Aunty Mind has a Self-Discipline of 98 giving her four Disciplines. She chooses as her Disciplines Choke, Pain, Mind Shield and Transmutation, and she categorizes them as follows:*

Level 0: "Choke"; Cost 1/2

Level 1: "Pain"; Cost 1/3

Level 2: "Mind Shield"; Cost 1/4

Level 3: "Transmutation"; Cost 1/5

A Psychic with more than two Disciplines may sacrifice his highest level Discipline in order to raise his Level 1 Discipline(s) to Level 0. This process forces the sacrificed Discipline into dormancy. If changes occur to the Self Discipline of the Psychic (see Changes in Self Discipline), these 'dormant' Disciplines may be 'awakened'. More than one Discipline can be made dormant. This process must be done before any development points are allotted to the Discipline.

Example: *Aunty Mind decides that "Transmutation" will not suit her future needs. So before developing "Transmutation", she drops it in favor of increasing "Pain" to Level 0.*

Level 0: "Choke"; Cost 1/2

Level 0: "Pain"; Cost 1/2

Level 1: "Mind Shield"; Cost 1/3

Level 2: "Transmutation" (dormant)

5.2

DEVELOPING DISCIPLINES

Once all Disciplines have been chosen and assigned Levels, the character can develop those Disciplines just as he would his normal skills. A Psychic can continue to develop his chosen Discipline(s) throughout his life.

CHANGES IN SELF-DISCIPLINE

During the course of a campaign, the character may encounter situations, in addition to normal stat gain rolls, that may alter his Self Discipline modifier. If this occurs, it can "awaken" dormant disciplines.

Example: *Aunty Mind discovers that the Institute for Psychological Research is testing an experimental drug that supposedly boosts Psychic abilities. Never being one to pass up an opportunity for power, Aunty Mind decides to be a guinea pig for the Institute. She takes the experimental drug, and sure enough, it raises her Self-Discipline by four points. Aunty Mind now has a SD of 102 giving her 7 total abilities, or 4 additional Disciplines, which must include any Disciplines which are 'dormant'. She enters the institute to develop some new Disciplines, and in a short time her abilities look like this:*

Level 0: "Choke"; Cost 1/2

Level 0: "Pain"; Cost 1/2

Level 1: "Mind Shield"; Cost 1/3

Level 2: "Transmutation"; Cost 1/4

Level 3: "Empathy"; Cost 1/5

Level 4: "Pyrokinesis"; Cost 1/6

Level 5: "Mind Death"; Cost 1/7

Aunty Mind can of course drop "Pyrokinesis" and/or "Mind Death" in order to raise "Mind Shield" and/or "Transmutation" to Level 0, but she'll have to do this before she begins any further development in those disciplines.

TARGETING SENSE

Psychics are limited to a single sense by which they target their disciplines. Some can only target their disciplines through sight or smell or touch. One sense must be selected (subject to GM approval) and cannot normally be changed. Listed below are the targeting senses and their modifications.

Sight—Some Psychics are sight based; they can only use their powers on targets they can see. This is the most common targeting sense and maneuvers are modified by such things as distance, lighting conditions, etc.

Touch—Some Psychics are tactile based; they can only use their powers on targets they can touch. The second most common targeting sense; the Psychic must make direct contact with the target's skin or whatever serves as skin for the target. All psychic maneuvers are at +30.

Smell—This rare targeting sense is almost never seen with humanoids but manifests itself within high order canines and entities that hunt for their prey through smell rather than by sight or sound. Modifications for this sense are air quality, air temperature, etc.

Sound—Not as rare as smell, this targeting sense often manifests itself in Psychics that have lost their sight. It is also common in aquatic entities and subterranean creatures. Modifications for this sense are distance and the quality of the medium through which the sound is being transmitted.

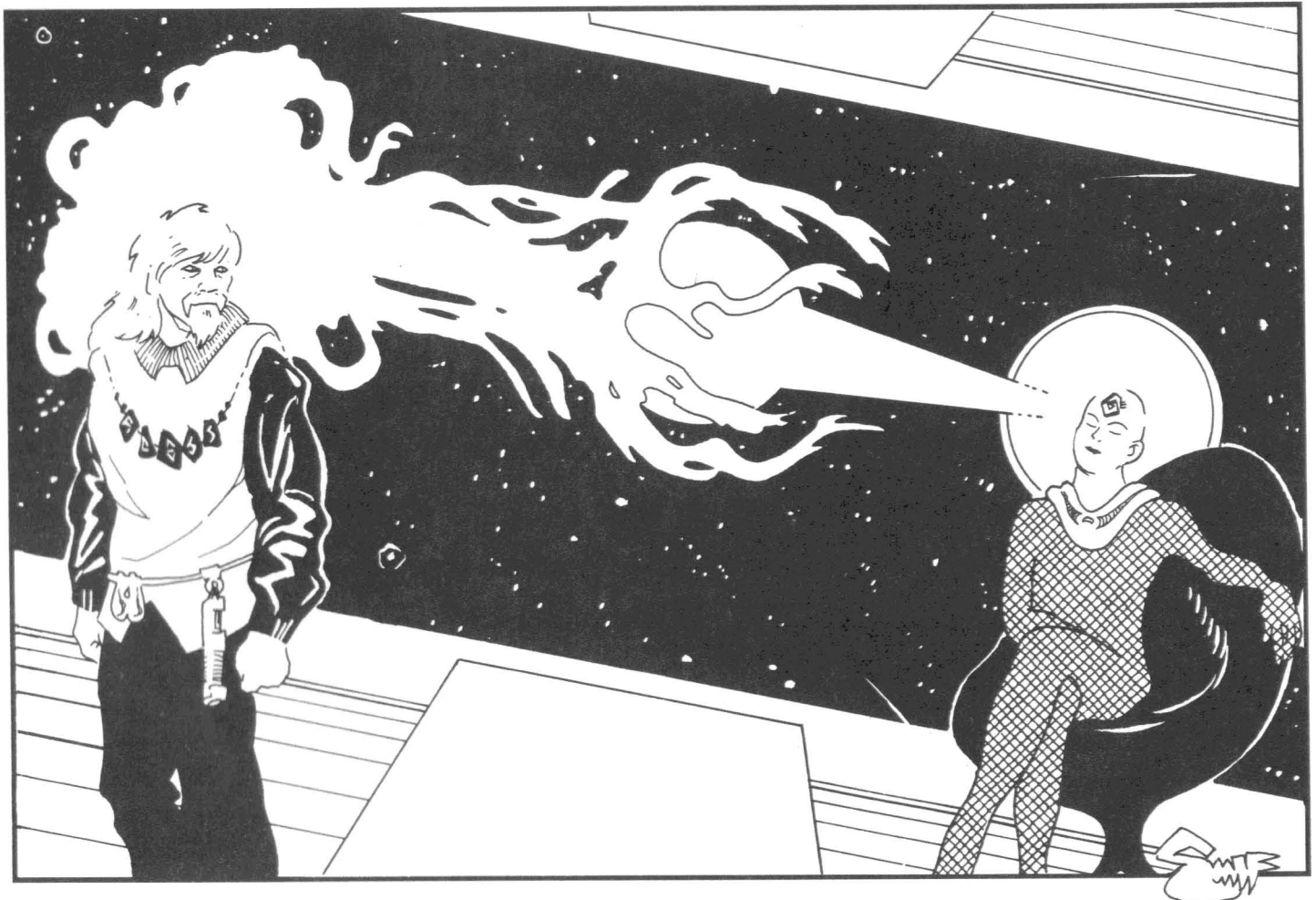
Taste—Extremely rare, this sense manifests itself in entities that rely exclusively on taste for their survival. There have been no reported examples among the humanoid populations. Modifications for this sense are the same as for touch.

Discipline—As rare as Taste, the Psychic must locate his target through a discipline such as Detection, Empathy, Probe, Psychometry, Telepathy, etc. The specific Discipline must be chosen at the time of the character's creation. When utilized, the Discipline blindly 'attacks' all targets within the Psychic's BIS. All range modifiers, etc., apply. All targets so detected can be attacked as long as they remain within the BIS of the Psychic.

5.3 DISCIPLINES AND CAPABILITIES

NOMINAL ACTIVITY RANGE (NAR)

A Psychic's power stems directly from his Self Discipline. The basis of his ability is directly proportional to his current SD modifier. The Nominal Activity Range (NAR) is the most important measure of a Psychic's true ability. The NAR is how many ranks of disciplines a psychic can use in a given round. It is equal to the Psychic's Self-Discipline modifier plus any racial adjustments. A Psychic is not required to employ all the ranks he has developed in a Discipline. Small increases in the Self-Discipline modifier can multiply a Psychic's power tremendously.



Example: *Aunty Mind has a Self-Discipline of 98. This gives her a base modifier of +15. She is human, so she receives an additional +5 making her total stat bonus 20. This bonus makes up her Nominal Activity Range (NAR). Aunty Mind cannot employ more than 20 ranks in any given round.*

Exceeding the NAR

A Psychic can exceed his Nominal Activity Range (NAR) by employing more ranks than he has NAR slots. A Psychic who exceeds his NAR, in any given round, will suffer a loss to his NAR equal to the difference between the total number of discipline ranks employed minus his NAR.

Example: *Aunty Mind is accosted by two Squigloids trying to mate with her purse. Squigloids are very dangerous this time of year, so Aunty Mind employs three defensive Disciplines and attacks in her first round. The total number of ranks she employs is 24. Her Nominal Activity Range (NAR) is 20, so she loses 24-20=4 points (slots) from her NAR. Now her Nominal Activity Range is 16. Ouch!*

A Psychic who has burned (reduced) his NAR may recover it after waiting a certain amount of time per point lost (see chart below) and then making a successful psychic maneuver skill roll modified by his SD modifier. For every 5% of success, the Psychic regains one (1) point of NAR. If the maneuver is unsuccessful, the Psychic must wait another period of time based on the points that remain lost before trying again (see the following table for the period of time).

Strong Psychics heal faster than weak Psychics. Refer to the following table to determine the time that must pass per point burned, and the skill roll modifier, before attempting to regain lost NAR.

Note that a Psychic does not have to attempt a full recovery. He may decide to only recover one or two points at a time. In such cases, his recovery time and roll is only modified by the number of NAR points he is attempting to recover.

NAR RECOVERY CHARTS		
NAR to be Recovered	Maneuver Type	
1-3	Routine	
4-6	Easy	
7-9	Light	
10-12	Medium	
13-15	Hard	
16-18	Very Hard	
19-21	Extremely Hard	
22-24	Sheer Folly	
25+	Absurd	

SD	Hours Delay per Point	Modifier per Point
75-89	10	-9
90-94	9	-8
95-97	8	-7
98-99	7	-6
100	6	-5
101	4	-4
102	2	-3
103	1	-2

Example: *Aunty Mind burned four points of NAR. She has a SD of 98. Referring to the recovery chart, Aunty Mind will have to wait 28 (7x4) hours before she has rested enough to attempt NAR recovery. Aunty Mind rests for the appropriate amount of time and then attempts to regain her NAR. Her base roll is 78 (58 die roll + 20 SD mod) this is modified by -24 (4 points lost x 6 recovery mod) yielding a total recovery roll of 54. Aunty Mind decided (before her maneuver) to only attempt to regain three points of NAR so that her maneuver would be Routine (see chart). Referencing the Psychic Maneuver Table on the Routine Column, Aunty Mind was successful; but by only enough to regain one point of NAR. Had she attempted to regain all four points, her maneuver would have been resolved in the Easy Column and would have failed. Aunty Mind will now have to wait 21 (7x3) more hours before she can attempt another recovery maneuver.*

A Psychic can reduce his NAR below 0 (zero). For every point the NAR falls below 0, the Psychic's Self-Discipline modifier will be equally reduced. This type of loss is not normally recoverable except through extraordinary means (list as a permanent modifier to the SD).

Example: *Overmind was caught in a really mean Psychic duel in which he had to push himself to unknown limits. The result was a reduction of his Nominal Activity Range (NAR) from 30 to -10! Overmind successfully makes his skill roll to recover the lost NAR, but now, because he was either unwilling or unable to retreat from the battle, his NAR and SD modifier are now 20. This is permanent.*

BOUNDARY OF INFLUENCE AND SENSATION (BIS)

Psychics have a Boundary of Influence and Sensation (BIS). This radius, or range, is the physical limit (in meters) in which a Psychic can manifest and sense most Psychic influences. The base BIS is equal to the Psychic's SD modifier multiplied by itself (i.e., SD modifier squared).

Example: *Aunty Mind has a SD modifier of 20. Her BIS is 20² or 400 meters. Any ranged discipline she uses is limited to her BIS. If she used Disciplines such as Probe or Pain, their ranges would be limited to 400 meters. A Psychic with a BIS of 900 meters could use the same Disciplines with greater range.*

Impedance

A Psychic's powers are much stronger at close range. The farther away a target, the more difficult it is to affect. All psychic maneuver rolls are modified by the distance between the Psychic and the intended target. Disciplines which do not require a maneuver rolls are unaffected by Impedance.

To quickly compute the Impedance modifier, determine the range to the target (in meters). If the distance is less than or equal to the psychic's level, there is no modifier. For each increment of levels, there is a -5 modifier to all psychic maneuver rolls.

Example: *Aunty Mind has a BIS of 400 meters and she is 10th level. At 10th level, Aunty Mind will have a hard time affecting someone far away from her. If she tries to affect a target 30 meters away, it would receive a bonus RR mod of -15 ((30 ÷ 10) × 5).*

Option: Multiply the result of (distance ÷ level) by 3.

Applying The BIS

All Disciplines that require a psychic maneuver roll are subject to the restrictions of the BIS and Impedance.

GM Note: *The BIS is a very handy tool by which to control the power level of a campaign that includes powerful psychic characters.*

MENTAL FATIGUE POINTS (MFPs)

Mental Fatigue Points (MFPs) are equal to the sum of the Psychic's temporary values for Reason, Memory, Empathy, Intuition, and Presence divided by 5. The Psychic will lose one MFP for every Discipline rank employed in a given round. Whenever a Psychic has expended 150% of his MFPs, he becomes mentally exhausted and cannot employ more Disciplines until he rests his mind. A Psychic will feel the affects of approaching fatigue (modifications to psychic maneuvers) before completely exhausting himself. Maneuver Modifiers are based upon the total number of MFPs expended.

MFPs Expended	Maneuver Modifier
50%	-10
75%	-20
100%	-40
125%	-80
150%	-100

Example: *Aunty Mind over-exerts herself one day while chasing a neighbor's cat out of her new garden. She decides to use 10 ranks of 'Body Discipline' to increase her Agility modifier and 12 ranks of 'Choke' for the cat for a total of 22 ranks. Aunty Mind only has 20 slots in her NAR (a fact she often forgets), so she loses 22 Mental Fatigue Points (and 2 points of her NAR).*

Aunty Mind finds the cat to be a very formidable opponent, and the chase lasts for many rounds. She quickly uses 50% of her MFPs and begins to suffer a -20 modifier to everything she does including employing Disciplines. Later she passes the 75% threshold and now finds it difficult to even run or think clearly. Finally she is able to get a clear shot at the troublesome feline using up 125% of her MFPs. Immediately afterwards, she realizes that she can't even walk and collapses to the ground.

The Maneuver Modifier affects everything the Psychic attempts. Maneuver Modifiers are applied directly to the dice roll, before any modifiers, to determine success or failure of the Discipline. A Psychic can use up to 150% of his MFPs before he is completely unable to employ more Disciplines.

FATIGUE FREE RANGE (FFR)

For every 5 levels of experience a Psychic achieves, he automatically converts one point of his Nominal Activity Range (NAR) into a Fatigue Free Range.

Example: *Aunty Mind is 10th level. She has two (2) points of FFR. This is still part of her overall NAR, but two points of it are Fatigue Free. If she decides to use 8 ranks in a Discipline, her total Mental Fatigue Point (MFP) cost will be only 6 (instead of the full 8).*

The Fatigue Free Range (FFR) is the last portion of the Nominal Activity Range (NAR) a Psychic will lose due to over-exertion (see Exceeding the NAR). Additionally, although a Psychic may have his full FFR available, if he has expended enough Mental Fatigue Points (MFPs) to develop a Maneuver Modifier (see Mental Fatigue Points), this modifier will still apply even if further Disciplines employed stay within the FFR. If a Psychic has expended more than 150% of his MFPs, he may still attempt a Discipline, provided that its total ranks are no higher than his FFR.

Example: *Aunty Mind has expended 50% of her MFPs, so she has a -10 modifier to all actions. She does not want to expend any more MFPs, so she limits herself to employing only one or two ranks with her Disciplines. Even though this method does not require her to use further MFPs, the use of these Disciplines is still modified by -10 due to mental exhaustion.*

Point Expenditure Modifiers and Extended Displacement within the FFR

All Disciplines initially require full fatigue expenditure and NAR slots equal to the number of ranks used. But some Disciplines do not require the normal amount of fatigue or NAR space to maintain them. Defensive Disciplines require only 1/10 of the normal expenditure after the initial employment. Concentration Disciplines require only 1/5.

Note: *If a psychic becomes unconscious due to illness, physical injury, or mental attack, then all Disciplines, even those within the FFR, are canceled.*

Note: *Any discipline that is an attack cannot be placed in an FFR slot.*

Example: *Aunty Mind likes to keep 10 ranks of Shield (AT 5), a defensive Discipline, active all the time. She employs Shield, which is within her NAR of 20, expending 10 Mental Fatigue Points (MFPs). On the next and following rounds, she will only have to use 1/10 of 10, or 1 slot of her NAR and 1 MFP to keep it active. She now has a NAR of 19 because she is using one of her NAR "slots" for Shield.*

Aunty Mind is a 10th level Psychic, so she has a Fatigue Free Range (FFR) of 2 (1 point per five levels). She decides to maintain Shield within her FFR. Now she no longer has to pay any MFPs, but her NAR is still 19; limiting her to only 19 ranks in the future, unless she wishes to burn her NAR or drop Shield from her NAR's Fatigue Free Slot.

Aunty mind now decides to place 6 ranks of Observation, a concentration Discipline, into her FFR. The initial Mental Fatigue Point (MFP) cost will be 5 (6 ranks - 1 (for the one remaining FFR slot)). Afterwards, it will only require 1/5 of 6, or 1 (always a minimum of 1) of her NAR. Since she has a FFR of 2, she can put this discipline into the FFR with Shield. She has now completely filled up her FFR, reducing her usable NAR to 18 slots. She can get no further benefits from her FFR unless she cancels one or both Disciplines.

Extended Costs	
Healing	1/10
Utility	1/2
Subconscious (waiting)	Full
Subcon. (programmed)	Full
Informational	1/2
Passive(indirect)	1/2
Passive(direct)	Full
Defensive	1/10
Force	Full
Mental Attack	Full
Concentration	1/5
Permanent	Full
Instantaneous	Full

MENTAL RECOVERY VALUE (MRV)

A Psychic's Mental Recovery Value is equal to his Self Discipline as a percentage of his constitution. The Psychic will have varying rates of recovery depending on his activity level.

Recovery Multiple / Hour	Activity Rank
x0	employing Disciplines/ expending MFPs/Combat
x1	no employment / not expending MFPs/ Disciplines stored in FFR
x2	total relaxation/ sleeping/ No Disciplines stored in FFR

Example: *Aunt Mind is a healthy old cow with a Constitution of 87. Her SD modifier is 10, so her Mental Recovery Value is 10% of 87 or 9. If she were actively employing Disciplines, she would recover no fatigue points. If she were not using Disciplines but still physically active, she would recover 9 MFPs/Hour. If she were sleeping or just lying about, not doing anything, she would recover 18 MFPs/Hour.*

The recovery of MFPs could alternately be taken in one minute intervals.

Example: *At level 1, Aunt Mind would recover 0 MFPs/minute. At level 2, she would recover 9÷60≈.15 MFPs/minute (almost 1 every 7 minutes). At level 3, she would recover 18÷60≈.3 MFPs/minute (about 1 every 3 minutes)*

A Psychic can only recover MFPs if he is not using his psychic abilities. Even if a Psychic is limiting Disciplines to his FFR, it is still considered active employment.

5.4 RESOLVING DISCIPLINE EFFECT

When a Discipline is employed, the effect of the Discipline must be resolved. In many cases, the results are automatic, but when the target is a living creature or unusual object, various results can occur.

NON-ATTACK DISCIPLINES

Non-attack Disciplines include all Disciplines which do not directly affect an opponent. These are indicated in the Discipline descriptions. When a non-attack Discipline is employed, the Psychic makes a maneuver roll on the Psychic Maneuver Table under the appropriate column (as determined by the GM).

DIRECTED DISCIPLINES

Directed Disciplines manipulate kinetic energy to directly attack a target. Directed Disciplines are resolved by making a Directed Discipline Attack Roll (DDAR) (open-ended), modifying it with any directed attack bonus the Psychic may have developed for the attack, and then applying the result to the appropriate Attack Table (see *Tech Book*). For example, Psychokinetic (PK) Bolt is a Directed Discipline that concentrates PK force into an attack that is resolved on the Blaster Attack Table. Normal OB and DB modifications apply and are based upon the Weapon Attack Table used for the Discipline (e.g., OB and DB modifications that apply to blaster attacks also apply to Psychokinetic Bolt attacks).

Skill Bonus

The skill bonus for a Directed Discipline is based upon the attacker's skill with the Directed Attack skill, not his skill for the corresponding weapon. Skill must be developed separately for each type of Directed Discipline (e.g., the skill for Psychokinetic Bolt must be developed separately from the skill for Hurling).

Directed Discipline Failure

Discipline failure is based upon the Discipline itself and not the corresponding Weapon Attack. If the Directed Discipline maneuver roll is 03-00, the Discipline succeeds and the attack proceeds normally. But if the roll is 01-02 the Discipline fails. If the discipline fails, another roll is made (*not* open-ended); the roll is modified by +20 and applied to the Discipline Failure Chart; the result is immediately applied to the Discipline or Psychic (whichever is indicated by the table).

Directed Discipline Resolution Summary

To resolve a Directed Attack, refer to the appropriate attack table (as indicated by the Discipline description), and follow the steps below.

- (1) Attacker makes a Directed Discipline Attack Roll (DDAR).
- (2) Subtract the defender's modifications (if any) from the Attacker's DDAR.
- (3) Cross-index the DDAR with the target's Armor Type on the attack table. If the result is 03 or greater, the attack has succeeded and the damage indicated is immediately delivered. If the result is less than 03, another roll is made (*not* open-ended), the roll is modified by +20 and applied to the Discipline Failure Chart.

Critical Hit tables

Some Discipline attacks require a roll on one of the Critical Strikes Tables (see *Tech Book*). In these cases, the attack proceeds as usual and if the Target fails to repel the attack, the Psychic employing the Discipline then makes an unmodified roll on the appropriate column of the critical chart indicated.

5.5 STANDARD DISCIPLINES

Standard Disciplines include those that are not Non-Attack Disciplines or Directed Disciplines. These Disciplines are resolved by making a Psychic Maneuver Roll (open-ended) and applying the roll to the Psychic Maneuver Table to obtain a result. Targets of Standard Disciplines defend themselves by applying their SD modifier, any modifiers for position, defensive disciplines, psycho-mystical devices, Mental Armor Type, and applicable defensive technological equipment.

MODIFICATIONS TO THE PSYCHIC MANEUVER ATTACK ROLL (PMAR)

The Attacker's base attack is equal to his percentage with the Standard Discipline he chooses to use in an attack. This value will vary depending on the number of ranks used in the attack. This Offensive Bonus is further modified by the following.

MFPs

The PMAR is increased by one for each additional MFP expended in the attack that is not actually required to employ the Discipline.

Range (BIS Impedance)

See the BIS section for the Impedance modification.

PSYCHIC MANUEVER TABLE

	MAT A Routine	MAT B Easy	MAT C Light	MAT D Medium	MAT E Hard	MAT F Very Hard	MAT G Ext. Hard	MAT H Sheer Folly	MAT I Absurd
-201	Disoriented; +2 MFPs; unable to attack for 3 rnds. (-10%)	Unconscious for 1 rnd; lose 5 MFPs. (-20%)	Unconscious for 5 rnds; lose 10 MFPs (-30%)	Unconscious for 10 rnds; lose 15 MFPs. (-30%)	Unconscious for 30 rnds; lose 20 MFPs. (-40%)	Unconscious for 60 rnds; lose 40 MFPs. (-50%)	Coma for 3 yrs. (-60%)	Failure results in synaptic overload; death follows in 6 rnds. (-70%)	Loss of all control results in synaptic overload; death follows instantly. (-100%)
(-200) – (-151)	Fail to act. (+0)	Stunned for 5 rnds. (-10%)	Coma for 2 mos. (-20%)	Coma for 3 mos. (-20%)	Coma for 4 mos. (-30%)	Coma for 6 mos. (-40%)	Coma for 8 mos. (-50%)	Coma for 1 yr. (-70%)	Failure results in paralysis from neck down. (90%)
(-150) – (-101)	10%	Fail to act. (+0)	Stunned for 6 rnds. (-10%)	Coma for 2 mos. (-10%)	Coma for 3 mos. (-20%)	Coma for 4 mos. (-30%)	Coma for 6 mos. (-40%)	Coma for 8 mos. (-60%)	Coma for 1 yr. (-80%)
(-100) – (-51)	30%	10%	Fail to act. (+0)	Stunned for 7 rnds. (-5%)	Coma for 2 mos. (-10%)	Coma for 2 mos. (-20%)	Coma for 4 mos. (-30%)	Coma for 6 mos. (-50%)	Coma for 8 mos. (-70%)
(-50) – (-26)	50%	30%	10%	Fail to act. (+0)	Stunned for 8 rnds. (-5%)	Permanent loss of 3 points of NAR. (-10%)	Coma for 2 mos. (-20%)	Coma for 4 mos. (-40%)	Coma for 6 mos. (-60%)
(-25) – 0	70%	50%	30%	5%	Fail to act. (+0)	Stunned for 9 rnds. (-5%)	Permanent loss of 4 points of NAR. (-10%)	Coma for 2 mos. (-30%)	Coma for 4 mos. (-50%)
01 – 20	80%	60%	50%	10%	5%	Fail to act. (+0)	Stunned for 10 rnds. (-5%)	Permanent loss of 4 points of NAR. (-20%)	Coma for 2 mos. (-40%)
21 – 40	80%	70%	60%	20%	10%	5%	Fail to act. (+0)	Stunned for 10 rnds. (-10%)	Untreatable hemmoraging; 1d50 hits every 1d10 wks for 1 yr. (-30%)
41 – 55	100%	80%	70%	30%	20%	10%	5%	Stunned for 5 rnds. (-5%)	Untreatable hemmoraging; 1d30 hits every 1d5 wks for 6 mos. (-20%)
56 – 65	100%	90%	80%	40%	30%	20%	10%	Stunned for 3 rnds. (+0)	Unconscious for 10 rnds. (-10%)
66 – 75	100%	100%	90%	50%	40%	30%	20%	5%	Unconscious for 5 rnds. (-5%)
76 – 85	100%	100%	100%	60%	50%	40%	30%	10%	Unconscious for 3 rnds. (+0)
86 – 95	100%	100%	100%	70%	60%	50%	40%	20%	5%
96 – 105	110%	100%	100%	80%	70%	60%	50%	25%	10%
106 – 115	110%	110%	100%	90%	80%	70%	60%	30%	20%
116 – 125	120%	110%	110%	100%	90%	80%	70%	40%	30%
126 – 135	120%	120%	110%	100%	100%	90%	80%	50%	40%
136 – 145	130%	120%	120%	110%	100%	100%	90%	60%	50%
146 – 155	130%	130%	120%	120%	110%	100%	100%	70%	60%
156 – 165	140%	130%	120%	120%	120%	110%	100%	80%	70%
166 – 185	140%	140%	130%	Super maneuver; you recover 4 MFPs. (130%)	Brilliant; foe is stunned 1 rnd; +10% for 2 rnds. (120%)	120%	110%	90%	80%
186 – 225	150%	140%	Great maneuver; you recover 4 MFPs. (130%)	Brilliant; foe is stunned 1 rnd; +10% for 2 rnds. (130%)	Maneuver stuns foe for 1 rnd; +20% for 4 rnds. (130%)	Maneuver stuns foe for 2 rnds; +30% for 3 rnds (120%)	120%	100%	90%
226 – 275	150%	Incredible maneuver; you recover 3 MFPs. (150%)	Brilliant; foe is stunned 1 rnd; +10% for 2 rnds. (140%)	Maneuver stuns foe for 1 rnd; +20% for 4 rnds. (140%)	Maneuver stuns foe for 2 rnds; +25% for 4 rnds. (130%)	Maneuver stuns foe for 2 rnds; +30% for 5 rnds. (130%)	You may attempt another maneuver this round at half ranks. (120%)	100%	100%
276+	Incredible maneuver; you recover 3 MFPs. (160%)	Maneuver impresses foe; +10% for 2 rnds. (150%)	Maneuver stuns foe for 1 rnd; +20% for 4 rnds. (140%)	Maneuver stuns foe for 2 rnds; +25% for 4 rnds. (140%)	Maneuver stuns foe for 2 rnds; +30% for 5 rnds (140%)	Maneuver stuns foe for 3 rnds; +35% for 5 rnds. (130%)	Maneuver stuns foe for 3 rnds; +35% for 6 rnds. (130%)	Maneuver stuns foe for 3 rnds; you may attempt another maneuver thisround at half ranks. (100%)	Maneuver stuns foe for 5 rnds; you may attempt another maneuver this round at full ranks. (100%)

Cover and Situation

Certain situations can result in modifications being given by the GM. For example, if the target is detected but not seen, a subtraction of -20 might be given.

Shields

Certain shields may modify PMARs. Consult the PMAR Modifiers chart and subtract any applicable modification.

DEFENSIVE MODIFICATIONS

The target of a Standard Discipline defends against a PMAR using the following modifications. Apply each of the following modifications to the PMAR.

Statistic Bonus

The target may modify the PMAR with his temporary SD stat bonus.

MFPs

The target may decrease the PMAR by one for each additional MFP expended.

Items

Certain items may convey a bonus. These modifications depend upon the item.

Race

Certain races are unusually resistant to Psychic power and may be given a modification by the GM based upon his world system. These modifications for the standard **SM** races are given in the Race Stat Chart, *PB* p.31.

Defensive Disciplines

The PMAR may be decreased by varying amounts depending on the strength of the defender's defensive Discipline(s) (if any).

Matching Disciplines

If the target possesses the same discipline as the attacker is using against him, he may use his base maneuver bonus with his discipline as a modification.

Willing Targets

Certain targets may submit themselves as willing participants to a Discipline. In such a case, the PMAR should be modified by +50, and the Mental Armor Type is dropped to 'A' (see Psychic Skills-Mind Mastery for a description of Mental Armor Type).

STANDARD DISCIPLINE RESOLUTION SUMMARY

To resolve a Standard Attack, refer to the Psychic Maneuver Table, and:

- (1) Attacker then makes a Psychic Maneuver Attack Roll (PMAR).
- (2) Subtract the defender's modifications from the PMAR.
- (3) Cross-index the PMAR with the target's Mental Armor Type (MAT) on the Psychic Maneuver Table.
- (4) If the result is 100% or greater, then the attack has succeeded; otherwise it has failed.
- (5) If the result is less than 100 and is a value with a detrimental description, this result is immediately applied to the attacker with no modification.

CRITICAL HIT TABLES

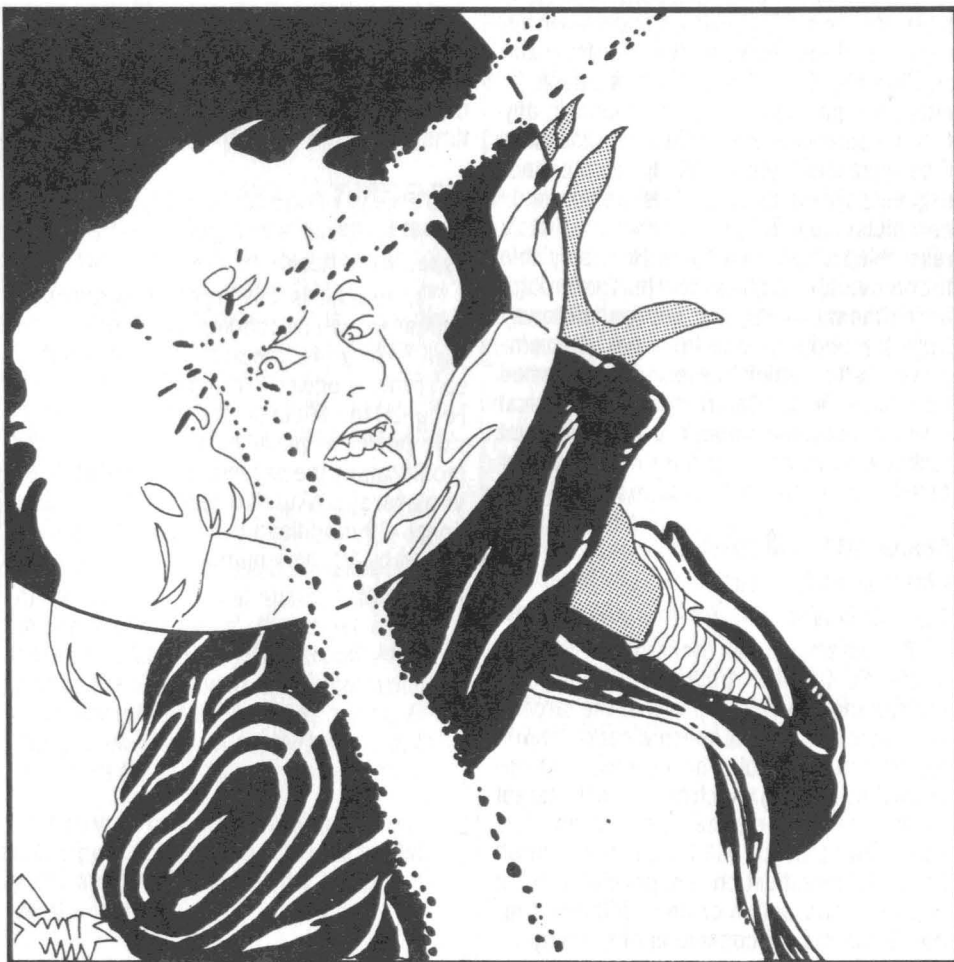
Some Discipline attacks require a roll on one of the Critical Hit Tables (see *TB*). In these cases, the attack proceeds as usual, and if the attack succeeds, the Psychic makes an unmodified roll on the appropriate column of the critical chart indicated.

PSYCHIC DISCIPLINE LIST

Psifire assumes that Psychic Disciplines are genetically encoded within each individual. It is theorized that every Psychic has potentially unlimited ability. But this science is too new to know.

Some Disciplines can be used to attack more than one target at a time; in these cases each target is subject to the same attack roll, i.e., the Psychic does not make a separate attack roll upon each target in the same round. There are references in many of the Disciplines to "success over 100." This refers to the maneuver result obtained from the Psychic Maneuver Table whenever a Psychic attempts a Psychic Maneuver, a Moving Maneuver, or a Static Maneuver. This value is obtained by subtracting the maneuver result from 100. The resulting number is then used in various ways explicitly outlined in the Discipline description.

All Disciplines are identified by name and class. The Class label contains specific information concerning how the Discipline functions within the mechanics of Psifire.



PSIFIRE DISCIPLINES

Astral Projection	Electrokinesis	Memory Alteration	Pyrokinesis
Behavioral Trigger	Electrokinetic Bolt	Metasense	Pyrokinetic Shield
Bio-Energy	Potential Control	Mind Death	Pyrokinetic Bolt
Bio-Regulation	Electrical Shielding	Mind Defense	Temperature Control
Body Discipline	Empathy	Mind Discipline	Flame Control
Changing	Energy Control	Mind Shield	Hyperthermia
Concealment	Energy Dispersal	Pain	Radiokinesis
Confusion	Exteriorisation of Sensitivity	Paralyze	Radiation Shield
Control	Flight	Photokinesis	Radiokinetic Bolt
Cryokinesis	Haste	Darkness/Illumination	Radiation Control
Cryokinetic Field	Healing	Light Blast	Raw Channel
Cryokinetic Bolt	Stun Relief	Photokinetic Shield	Sense Destructio
Temperature Control	Cut Repair	Probe	Sense Discipline
Ice Control	Tissue Repair	Psychokinesis	Sleep
Hypothermia	Organ Repair	Hurling	Suggestion
Density Control	Regeneration	Field	Telepathy
Desolidification	Psychic Surgery	Shield	Teleportation
Detection	Restore Spirit	Wall	Telesthesia
Disruption	Illusion	Psychometry	Transfer
Dodging	Infrared Vision		Transmutation
	Interface		Ultrasonic/Hypersonic Hearing
	Kinetic Bolt		Ultraviolet Hearing

DISCIPLINE DESCRIPTIONS

ASTRAL PROJECTION

Class: Utility

Type: Non-Attack

The psychic is able to separate his spiritual self from his physical self and exist in the nether regions between the mental plane and the physical. The psychic is unable to affect the physical or mental plane in any way. He perceives both environments just as if he were there physically. He also cannot use any psychic abilities. He is highly visible as a bluish spectral presence which closely resembles his physical form. He is only able to communicate with sentient beings through their dreams. A Psychic can remain away from his body for one hour per rank employed, after which he is instantly pulled back to his body. Returning to the physical plane is instantaneous. The psychic must rest one hour for every hour he was out of body. The psychic is limited to his BIS.

BEHAVIORAL TRIGGER

Class: Mental Attack

Type: Standard

The psychic forces the target to perform a specific set of instructions. The psychic imbeds the control deep within the target's subconscious until a specific set of events 'trigger' the control. The psychic first decides the action(s) which he wants the target to perform, then he 'programs' the condition(s) which will trigger the control. For a -20 modification, the psychic can set one additional action or one additional trigger within the subconscious of the target.

Example: A Psychic attempts to train his dog to fetch the paper. The action is for the dog to bring the paper into the house and leave it on the chair. The trigger is whenever the dog hears the paper land on the porch.

In the case where there are multiple controls based on a single trigger, the psychic must decide on an order in which the controls will work. Behavioral Triggers fade over time.

BIO-ENERGY

Class: Force

Type: Non-Attack

The psychic is able to power any piece of equipment which requires one non-flamer "cell." For a -10 modification, the psychic can provide power in place of a "cartridge." For a -30 modification, the psychic can provide power in place of a pack. For a -50 modification, the psychic can provide power in place of a Mark#10 reactor. Each additional -20 modification will increase power output by 10 Mark numbers.

BIO-REGULATION

Class: Mental Attack

Type: Standard

The psychic is able to regulate or sustain the functions of any body with a similar system by transmitting his own system's bio-impulses.

Example: If the heart of the target were failing, the Psychic could transmit his own heart's bio-impulses to maintain the target's heart.

This Discipline is applicable to any bodily system which is at least similar to the psychic's own. The psychic must make a successful maneuver in order to transmit his bio-impulse to the target. Bio-regulation cannot affect the brain.

Bio-regulation can be used in an attempt to kill a target by interrupting the target system's signals (e.g., such an attack might be directed toward the heart). Target suffers damage based upon the amount the psychic exceeds 100 with his maneuver roll. A success of 1-10 over 100 = "A"; 11-20 = "B", etc. All criticals are Neuro criticals.

BODY DISCIPLINE

Class: Utility

Type: Non-Attack

This discipline gives the psychic a bonus of +2 per rank used to all skills involving the stats of Strength, Constitution, Quickness, and Agility.

Example: *Astro's ship suffered damage to its retro-thrusters and stabilizer circuits upon atmospheric entry to his home planet. Realizing that his physical skill level is not going to be enough to handle the violently pulsating controls, he employs 10 ranks of Body Discipline (+20) to his skill roll in an attempt to land safely. The GM assigns a -30 penalty to the maneuver. Astro has a piloting skill bonus of 65. Totaling the modifications results in a base modifier of (65+20-30) = 55. Astro rolls a 56 for a net result of 101. Whew! The ship lands safely.*

CHANGING

Class: Utility

Type: Non-Attack

This ability allows the psychic to change his entire physical form (or parts of it). The psychic's mass never changes, although his actual size may. The psychic is limited in the number of forms into which he may change. A psychic may gain a new form for every (5) ranks of development. The form changed into can be practically anything from a different race to something resembling an inanimate object. A psychic retains all of his abilities (although his new form may not allow him to hear or see in the same way as his natural form). If the new form has any physical advantages, these are gained by the psychic. The psychic's clothes and equipment do not change with him.

CONCEALMENT

Class: Mental Attack/Concentration

Type: Standard

Psychic is able to interfere with the sensory input of the target so that he is 'invisible' to those senses. Apply a -10 modification for each sense attacked. The target may get additional Perception rolls to negate the interference if the psychic produces the proper stimulus for that sense. The target's Perception rolls are modified by -2 per rank employed by the psychic.

Example: *Sneak, a Crime Technician, is attempting to make his way out of a drugstore with some bubble gum without paying for it. The store clerk has his back to the door. Sneak decides to affect the clerk's hearing so that he will not hear him leaving. He successfully attacks and begins leaving the store. The door is perceptibly noisy, giving the clerk a Perception roll. The clerk fails the roll and Sneak makes off like a bandit.*

In cases where the psychic affects many senses simultaneously, any modifications to the target's Perception attempts must be equally divided among all the target's affected senses. This discipline only conceals the psychic and any incidental, perceptible effects in his immediate environment. If the psychic moves something in the room, such as a large table, this action would not be concealed.

CONFUSION

Class: Mind Attack/Concentration

Type: Standard

For as long as the psychic maintains this discipline, he can keep a target confused. While affected by this discipline, the target must make an Orientation roll each round in order to act. The target's Orientation roll is modified by -2 per rank used by the psychic.

CONTROL

Class: Concentration/Mental Attack

Type: Standard

Allows a psychic to control the actions of the target. Depending on the psychic's maneuver result, he will be able to force the target to perform partial actions over the course of several rounds or, with a greater maneuver result, force the target to perform the entire action in a single round. The actual percentage of the action completed per round by the target is equal to twice the result of the maneuver result over 100.

Example: *If the Psychic achieved a maneuver result of 115 with his Control discipline, the target would complete 30% of the action in the first round. At the end of the second round, the target would have completed 60% of the action. At the end of the third round, the target would have completed 90% of the action. Finally, in the fourth round, the target would complete the last 10% of the action.*

Observers can notice a target is under control by making a Perception roll modified by the amount of control the psychic has over the target.

Example: *If the Psychic has 80% control of the target, observers would have a -80% chance of noticing that the target was under some sort of control.*

All commands must be given verbally (unless telepathy is used). The psychic must have some means of observing the target to accurately coordinate the target's responses with his environment. If observation is not possible, the psychic suffers a -10 modification to the PMAR. Each additional target gives a -15 modification.

CRYOKINESIS

Class: Force

Type: Depends on ability (see below)

Cryokinesis is a rare form of Psychokinesis that instantly removes energy from matter. Some of the documented abilities of this discipline are shown below (each ability must be developed separately).

Cryokinetic Field (Non-Attack)—The psychic is able to create a skin-tight field about himself that protects him from intense cold. For every rank employed, the psychic can withstand -10 degrees Celsius and a +2 bonus vs. cold attacks per rank employed. Criticals suffered from extreme cold or cold based attacks may be reduced by one level with a successful maneuver roll: 'A' criticals are resolved as (hard); 'B' (very hard); 'C' (extremely hard); 'D' (sheer folly); 'E' (absurd).

Cryokinetic Bolt (Directed)—The psychic can shoot a bolt of intense cold. Damage is determined on the Blaster Attack Chart using Cold Criticals. The base OB is the bonus the Psychic has developed with Cryokinesis. At least five ranks must be employed to achieve a Mark#1 attack (i.e., no attacks are allowed at all until at least five ranks are developed). Ten ranks would yield a Mark#2 attack, and so on up to Mark#5. Damage multiples can be achieved with a successful maneuver: x2 (medium); x3 (very hard); x4 (extremely hard); x5 (sheer folly); x6 (absurd). When attempting to gain damage multiples, if the psychic fails to achieve 100%, the damage is considered x1.

Temperature Control (Non-Attack)—For each rank employed, the psychic can lower the temperature (by 10° Celsius) of approximately one cubic meter of mass at one kilogram (includes air).

Ice Control (Non-Attack)—psychic can instantly chill/freeze normal liquids. One liter can be chilled per rank used.

Hypothermia (Standard)—A psychic can lower the temperature of a target rapidly enough to do serious damage. The target suffers damage based upon the amount the Psychic exceeds 100 with his maneuver roll. A success of 1-10 over 100 = "A"; 11-20 = "B", etc. All criticals are Cold criticals.

DENSITY CONTROL

Class: Force/Concentration

Type: Non-Attack

The psychic is able to manipulate inorganic matter at the atomic level in order to increase or decrease its density. If the density is decreased enough, the psychic could pass completely through it. Likewise, a wall of air could be made so dense that a person or object could not 'walk' through it. This discipline could yield solid blocks of air and water, and 'vaporous' solids. One cubic foot of substance can be affected per -5 modification. Gases turned into solid material gain 5 concussion hits per -5 modification. The material will return to its normal density when the psychic ceases to concentrate. Targets can be trapped within 'solid' materials. If the target cannot breathe, he will suffocate... target loses 10 concussion hits per round until dead. This progression is cumulative, so the target would lose 10 on the first round, 20 on the second (for a total of 30), 30 on the third round (for a total of 60), and so on.) Materials affected by this discipline do not become transparent or opaque (if they did not possess those characteristics initially).

DESOLIDIFICATION

Class: Force/Concentration

The psychic is able to manipulate his body at the atomic level. He may increase or decrease his body's density. For each rank used to increase density, the psychic may add +2 to his DB. For each rank used to decrease density, the psychic may make up to 2 kgs of his body "desolid." Movement through solid objects is usually slow. Objects of AT 1 or AT 2 do not affect movement. Objects of AT 3 can be moved through at half normal rate. Objects of AT 4 can be moved through at a quarter of normal rate. Objects of AT 5 can be moved through at an eighth of normal rate, etc.

DETECTION

Class: Passive(direct)/Utility/Subconscious (programmed)

Type: Standard

The psychic is able to detect any mind that enters his BIS. Shielded minds are more difficult to detect. A psychic can instantly gain a great deal of information about the minds this discipline detects. With a -10 modification, the psychic will be alerted when there is a sentient, unshielded presence nearby (but it will not give an exact location). It will also alert the psychic that he has been detected by another psychic's Detection discipline. With a -15 modification, the psychic gets a sense of direction and distance to unshielded minds. A -20 modification gives a brief feeling of the current actions of the being with an unshielded mind. A -25 modification alerts the psychic to a potential attack from an unshielded mind. Finally, a -30 modification alerts the psychic to a shielded mind (as described in Mind Shield) but gives no direction or identity.

This discipline may be subconscious (programmed so it can be set in advance to work subconsciously) or it can be used consciously. All information gained is very general in nature. For example, an attack could be perceived, but exactly how the attack would be carried out would not be known.

DISRUPTION

Class: Force/-

Type: Directed

The psychic unleashes a bolt of bio-energy which disrupts living tissues (at the cellular level) for damage determined on the Disrupter Attack Chart. Criticals are resolved on the Disruption Critical Table. The Psychic begins with a Mark#1 attack. At least five ranks must be employed to achieve a Mark#2 attack. Ten ranks would yield a Mark#3 attack, and so on.

DODGING

Class: Utility

Type: Non-Attack

This Discipline allows a Psychic to dodge (partially or completely) melee (medium), missile (hard), projectile (very hard), or energy attacks (extremely hard) with a successful maneuver result. The amount of the PMAR over 100 is doubled and added to the psychic's DB against the incoming attack.

Example: If the Psychic achieved a maneuver result of 135 with his Dodging Discipline, then the damage would be reduced by $((135-100) \times 2) = 70\%$.

ELECTROKINESIS

Class: Force

Type: Depends on the ability (see below)

Electrokinesis is a form of Psychokinesis that allows the psychic to vary the electrical potentials between two points (causing an electrical discharge to occur). Some of the documented abilities of this Discipline are shown below (each ability must be developed separately).

Electrokinetic Bolt (Directed)—The psychic can shoot a bolt of crackling electrical energy. Damage is determined on the Blaster Attack Chart using Electrical Criticals. The base OB is the bonus the Psychic has developed with Electrokinesis. At least five ranks must be employed to achieve a Mark#1 attack (i.e., no attacks are allowed until at least five ranks are developed). Ten ranks would yield a Mark#2 attack, and so on up to Mark#5. Damage multiples can be achieved with a successful maneuver: x2 (medium); x3 (very hard); x4 (extremely hard); x5 (sheer folly); x6 (absurd). When attempting to gain damage multiples, if the psychic fails to achieve 100%, the damage is considered x1.

Potential Control (Standard)—For each rank employed, the psychic can lower or raise approximately one ampere or volt of electrical current through a conduit such as electrical wiring or circuit boards. This form of electrokinesis might cause an electronic device to malfunction.

Electrical Shielding (Non-Attack)—A psychic can protect himself from electrical attacks. Criticals suffered from electrical based attacks may be reduced by one level with a successful maneuver roll: 'A' criticals are resolved as (hard); 'B' (very hard); 'C' (extremely hard); 'D' (sheer folly); 'E' (absurd).

EMPATHY

Class: Mind Attack/-

Type: Standard

The psychic may read, send, or induce emotions and feelings within the target. A Psychic should develop individual, specific empathic Disciplines (e.g., fear, despair, hopelessness). A successful maneuver roll can read an emotion. To send an emotion incurs a -5 modification. Inducing an emotion incurs a -10 modification. An additional target may be affected with the same or different emotion for an additional -10 modification. For a -10 modification, the psychic can make the emotion strong. (-30 to attempts at controlling the target). For a -20 modification, the psychic can make the emotion uncontrollable (-50 to attempts at controlling the target). The target is allowed an Orientation Maneuver roll each round to try

and control his emotion(s). The Psychic can modify this roll by the net result over 100 of his skill roll.

Example: *If the target was affected with fear and failed his maneuver, he would flee. If the target was affected with rage and failed his maneuver, he would immediately attack the source of his rage (if he could) without regard to his or other's personal safety.*

ENERGY CONTROL

Class: Force/Concentration

Type: Standard

The psychic is able to drain the power from one personal equipment power supply (non-flamer) in one round. For a -5 modification, the psychic can drain a cell. For a -15 modification, the psychic can drain a cartridge. For a -25 modification, the psychic can drain a pack. For a -35 modification, the psychic can drain a Mark#10 reactor. Each additional -15 modification allows the psychic to drain ten additional Mark numbers of reactor power. In the case of reactors (and their like), once the Psychic stops concentrating the reactor will regain its normal power levels.

ENERGY DISPERSAL

Class: Force/Defensive

Type: Non-Attack

The psychic is able to disperse energy attacks. The psychic can subtract 10 from one incoming energy attack of (Mark#5 or less) for every rank used. For each additional -10 modification, an additional attack may be dispersed. For each additional -20 modification, an additional Mark# may be dispersed.

EXTERIORIZATION OF SENSITIVITY

Class: Utility/Concentration

Type: Standard

This discipline enables a psychic to move his senses (such as taste, sight and/or feel) to a specific target (organic/inorganic), at a point away from his physical self. These 'exteriorized' senses give the Psychic the same input as if he were the target. When a sense is exteriorized, it is unavailable to the Psychic's body.

FLIGHT

Class: Force/Utility/Concentration

Type: Non-Attack

Flight permits the psychic to defy gravitational constraints and move about through open spaces freely. The psychic accelerates at 1 meter/sec (mps) per second and can achieve a maximum speed of 1 mps/rank. The psychic can hover in any orientation he chooses.

HASTE

Class: Utility

Type: Non-Attack

The psychic achieves extraordinary speeds. Every 5 ranks employed gives an additional 25% action at the end of the round of employment. For example, 5 ranks will give the psychic 125% action; 20 ranks will give the psychic 200% action.

HEALING

There is a wide variety of healing disciplines available to the psychic. Some are very basic in their effects, while others are nothing short of miraculous. The psychic may choose develop his healing disciplines so that he cannot affect others with them.



Disciplines developed in this manner are considered subconscious (waiting) and must be developed separately from disciplines used to heal others.

All healing disciplines require that the psychic be touching the target (unless that target is himself). In addition, all healing disciplines have a reverse effect. The reverse effect does not have to be developed separately from the normal effect. Note that the psychic must touch a target to deliver damage from the reversed effects. This may require a bare-handed attack (GM's discretion).

Stun Relief

Class: Healing/Permanent

Type: Standard

This discipline allows the psychic to remove stun. The maneuver is modified by -5 for each round of stun the psychic attempts to relieve.

Reverse: The PMAR suffers a -10 modification for each round of stun the Psychic attempts to bestow.

Cut Repair

Class: Healing/Concentration/Permanent

Type: Standard

This discipline allows the psychic to remove one point of bleeding. The maneuver is modified by -10 for each round of bleeding the psychic attempts to repair.

Reverse: The PMAR suffers a -15 modification for each round of bleeding the Psychic attempts to bestow.

Tissue Repair

Class: Healing/Concentration/Permanent

Type: Standard

The psychic is able to repair one damaged (but not destroyed) muscle, tendon, cartilage or similar tissue. Each damaged area must be tended separately. This process has a base modifier of -15.

Reverse: The PMAR suffers a -20 modification for each area the psychic attempts to damage.

Skeletal Repair

Class: Healing/Concentration/Permanent

Type: Standard

The psychic is able to repair one damaged (but not destroyed) bone. Each damaged bone must be tended separately. This process has a base modifier of -20.

Reverse: The PMAR suffers a -25 modification for each bone the psychic attempts to fracture (each success results in one fractured bone).

Organ Repair

Class: Healing/Concentration/Permanent

Type: Standard

The psychic is able to repair one damaged (but not destroyed) organ. Each damaged organ must be tended separately. This process has a base modifier of -25.

Reverse: The PMAR suffers a -30 modification for each organ the psychic attempts to damage.

Regeneration

Class: Healing/Concentration/Permanent

Type: Standard

The psychic is able to regenerate destroyed parts of the body (including lost limbs, organs, tissues, and bone). Each destroyed part must be tended separately. This process has a base modifier of -30.

Reverse: The PMAR suffers a -35 modification for each body part the psychic attempts to destroy.

Psychic Surgery

Class: Force/Concentration/Permanent

Type: Standard

The psychic is able to reach into the target's body and perform surgery as required. This discipline is used to remove foreign matter from the target's body. No tools are used and the psychic must use his bare hand(s). The psychic must make a successful maneuver roll to successfully complete the task without injuring the patient. A failed skill roll (less than 100%) will give the patient 1d10 concussion hits per 10% less than 100. In addition, for each 25% failure, the patient suffers one critical level of damage (the exact critical type should be determined by the GM).

Reverse: Psychic must make a successful maneuver roll in order to successfully injure the patient (1d10 hits per 10% success; 1 Disruption Critical level per 25% success). A failed skill roll will result in no harm to the target. The PMAR suffers a penalty equal to the target's DB.

Restore Spirit

Class: Force/Permanent

Type: Standard

This discipline forces the spirit or soul of the recently deceased to return to the body. The target to be restored cannot have been deceased longer (in days) than the number of ranks employed. This discipline may only be attempted once per target by the same psychic. Targets so restored must completely rest for one day per hour deceased. Any attempts to act before this time are modified by -90.

Reverse: The psychic attempts to drive the soul away from the target's body (i.e., the target dies). Targets of this discipline are treated as if they were Mental Armor Type G. The PMAR suffers a -40 modification.

ILLUSION

Class: Mental Attack/Concentration

Type: Standard

This discipline allows the psychic to directly project illusions into the target's mind. These illusions are made real by manipulating the sensory input of the target. A simple illusion (with only one sense affected) requires a -10 modification. One extra sense can be affected for each additional modification of -5. Each additional target affected causes another -5 modification. The psychic may modify the target's Perception roll by applying the result over 100 from his skill roll to the target's roll. If more than one sense is being affected, the modification must be divided equally among all targeted senses. The Psychic can change the illusion once every round if he so desires. Sudden changes in logical reality (a train changing into a fish) may entitle the target to a bonus perception to drive the illusion from his mind.

Targets can receive damage from an illusory attack. Target suffers damage based upon the amount the Psychic exceeds 100 with his Psychic Maneuver roll. A success of 1-10 over 100 = 'A'; 11-20 = 'B', etc. All criticals are Shock criticals. The damage applied is systemic only, but the target believes he is actually suffering damage appropriate to the illusory attack. The target may suffer only one critical per psychic per round.

Note: A clever player will benefit from this Discipline a great deal. The GM must keep in mind that illusions, projected into the mind, are scrutinized a great deal more by the target than those illusions which are external to the target. The slightest incongruity within the illusion should entitle the target to a Perception roll. If the target succeeds, the entire illusion is disrupted. The player is reminded that a good GM will monitor the use of this discipline very carefully.

INFRARED VISION

Class: Passive(direct)

Type: Non-Attack

The psychic can see using heat radiation. Cold objects will appear almost black, while hot objects will appear blindingly bright. Range is that of normal sight and Perception roll bonus is based on the number of ranks employed. The more ranks employed the greater the detail.

INTERFACE

Class: Force/Concentration

Type: Standard

With this Discipline, the psychic can overlay his synaptic map onto the energy configuration of a computing device (anything with a central processing core or unit). This interface can be established through any input means that the computing device could normally use, including phones, video, or sensory systems. Once in place, the psychic must make an Orientation roll to understand the system. This roll is modified by -5 for each Mark# of the device. If the orientation is successful, the Psychic can begin manipulating data as if he were sitting at a terminal (data searches, adding data, deleting data, data copy, etc.). Often, a sensitive file will be protected by a security file or system. Before the Psychic can access this data, he must override the security. Security systems have levels/Mark#s of effectiveness. The Psychic must attack these systems at their level/Mark#. For maneuver modification, multiply the level/Mark# by five to calculate the appropriate base penalty. If the psychic succeeds, passage is gained without tripping any alarms. If the Psychic fails, access will be denied and the system will notify the appropriate authorities. Interface does not allow a Psychic to actually write a program or make changes to how the software (or hardware) functions.

KINETIC BOLT

Class: Force

Type: Directed

Kinetic Bolt is a specialized attack related to Psychokinesis. The psychic creates very intense, focused beams of Psycho-kinetic force which can be projected as an attack. Kinetic Bolts attack using the Blaster Attack Chart with Puncture criticals. The Psychic begins with a Mark#1 attack. At least five ranks must be employed to achieve a Mark#2 attack. Ten ranks would yield a Mark#3 attack, and so on.

MEMORY ALTERATION

Class: Mental Attack/-

Type: Standard

The psychic may alter or remove a single memory that the target possessed. The memory affected must be specifically known by the psychic. This discipline may also be used to restore a memory to the target.

METASENSE

Class: Passive(direct)

Type: Non-Attack

A metasense is a special sense which detects phenomena not perceivable by ordinary senses. Examples might include gamma radiation, microwaves, radio waves, gold, viruses, illness, magnetic fields, life, energy, toothpaste, Psi energy, Psi minds, Psychic Disciplines, and so on. Where the category is broad (such as energy), the psychic must choose a specific type of phenomena (such as electricity, fusion, fission, etc.). Any skill roll less than 100 will only confirm that the particular phenomenon is present, but no direction or quantity. Skill rolls in excess of 100 will give better information (e.g., distance, direction, and quantity with distance being associated with low skill rolls and quantity being associated with high skill rolls). If the phenomenon is being shielded in some way (naturally or synthetically), the psychic may use his metasense to attack the shielding.

MIND DEATH

Class: Mind Attack/-

Type: Standard

This discipline allows the psychic to sever all synaptic connections in the target's mind. The target suffers Neuro critical damage based upon the amount the psychic exceeds 100 with his Psychic Maneuver roll. A success of 1-10 over 100 = "A"; 11-20 = "B", etc.

MIND DEFENSE

Class: Utility/Subconscious(waiting)

Type: Non-Attack

This discipline allows a psychic to better protect himself from mental attacks. For every rank employed, the psychic gains a +2 bonus to his mental defense.

MIND DISCIPLINE

Class: Utility

Type: Non-Attack

This Discipline gives the psychic better control of his own mind. The psychic gains a bonus of +2 per rank employed to Memory, Reason, Presence, Intuition, Empathy and Self-Discipline.

Example: *Recombo Net, a renowned geneticist, is having a difficult time isolating a renegade gene. He has worked hard for many months and knows the gene is within his grasp, but he can't see the forest because of the trees. He decides to take one last stab at it before going home*

for the night. His normal Genetics skill bonus is +95, a good bonus. But the GM-designed mutant gene has an intelligence of its own, so Recombo's roll will be modified by -70. Recombo concentrates for a moment and employs 20 ranks for Mind Discipline or a bonus of +40. This makes his base roll 65. Recombo rolls a 24 for a total of 89, not good enough. Too bad. But he is closer to isolating the gene than he was before, and the GM will remember this and give him a bonus next time he tries.

MIND SHIELD

Class: Utility/Subconscious (programmed)

Type: Non-Attack

This discipline allows the psychic to protect his mind from mental probes and mental detections (not mental attacks). For a Probe or a Detection Discipline to penetrate a Mind Shield, the attacker must be employing a greater number of ranks than the Psychic has installed in his Mind Shield.

MIND STORE

Class: Mental Attack

Type: Standard

This discipline allows the psychic to store the mental pattern of the target for later use with Telepathy or Probe. Once a mind is stored it can be targeted from any location, regardless of the distance between the target and the Psychic (i.e., ignores impedance but not the range limits of the BIS). Normal attack procedures are still followed and the usual mental defenses apply. This Discipline may also be used to remove a stored mind from a target.

MIND TRAP

Class: Mind Attack/Subconscious (waiting)

Type: Standard

Allows a psychic to set up a trap within his own mind that can snare psychics who attempt Probes and Detections upon him. Whenever a Probe or Mental Detection attacks the Psychic's mind, the Mind Trap is instantly triggered. The Psychic must then make a Static Psychic Maneuver. If the net result is greater than that of the attacker's PMAR, the Mind Trap succeeds and the psychic gains a 'free' (no defenses) attack upon his attacker. After the attempt the trap is dissolved. The psychic must program the trap and counter-attack when he sets the Discipline. MFPs are expended at the time the trap is activated (note that this makes it susceptible to Mental Fatigue modifiers).

PAIN

Class: Mental Attack

Type: Standard

Psychic attacks the target by filling him with pain. For every 2 ranks employed, the target is stunned one round. Concussion damage is determined by using the number of ranks employed as a percentage of the net skill result over 100. Additional targets may be affected for a -10 modification (cumulative per target).

Example: *Mind Wipe decides to really take charge of a small conflict in his living room. He employs 20 ranks and stuns the target for 10 rounds. His maneuver result is 148, so he delivers 9 (20% of 48) concussion hits.*

PARALYZE

Class: Mental Attack/-

Type: Standard

Affected targets will be completely paralyzed for a number of rounds equal to one half the number of ranks employed in the attack. Additional targets may be affected for a cumulative (-10 modification) per target.

PHOTOKINESIS

Class: Force/Concentration

Type: Depends on the ability (see below)

Photokinesis is a rare form of Psychokinesis that manipulates light radiation. Some of the documented abilities of this discipline are as follows (each must be developed separately).

Darkness/Illumination (Standard)—The Psychic can reduce/increase available illumination by 5% for each -5 modification. The Psychic can affect a particular sector of his BIS with the appropriate impedance modification.

Light Blast (Directed)—The psychic can shoot forth a bolt of intense light energy. Damage is determined on the Blaster Attack Chart using Heat criticals. The base OB is the bonus the psychic has developed with this skill. At least five ranks must be employed to achieve a Mark#1 attack (i.e., no attacks until at least five ranks are developed). Ten ranks would yield a Mark#2 attack, and so on up to Mark#5. Damage multiples can be achieved with a successful maneuver: x2 (medium); x3 (very hard); x4 (extremely hard); x5 (sheer

folly); x6 (absurd). When attempting to gain damage multiples, if the psychic fails to achieve 100%, the damage is considered x1.

Photokinetic Shield (Non-Attack)—The psychic is able to create a skin-tight field about himself that protects him from intense light. For every rank employed the psychic gains a +2 DB versus light based attacks. Criticals suffered from extreme light energy based attacks may be reduced by one level with a successful maneuver roll: 'A' criticals are resolved as (hard); 'B' (very hard); 'C' (extremely hard); 'D' (sheer folly); 'E' (absurd).

PROBE

Class: Mental Attack/Concentration

Type: Standard

Psychic may search for and isolate a single mind so as to read its thoughts and makeup. Minds that are protected by Mind Shield or Shadow Mind are much more difficult to isolate.

The following modifications are for extracting information from the mind of the intended target.



Modifications

- 0 Target is currently thinking about desired information/memory
- 10 Target has recently thought about desired information/memory
- 20 Target has not thought about desired information/memory for some time
- 20 Target has not thought about desired information/memory in years
- 45 Mental Alterations/Psychic Disciplines

Probe can also be used to locate a particular mind within the BIS of the psychic. If the psychic has Mind Stored (see that discipline) his target, he is not limited by impedance, and must make a successful psychic Maneuver to connect with the target (mental defenses still apply). A psychic can maneuver himself around a large concentration of minds in order to reduce the modifications by only allowing a portion of his BIS to intersect the group.

The following modifications are for searching for the mind of a particular target.

- 0 1-5 additional minds, other than the Psychic's, within his BIS
- 5 6-10 additional minds within the Psychic's BIS
- 10 11-20 additional minds within the Psychic's BIS
- 15 21-40 additional minds within the Psychic's BIS
- 20 41-80 additional minds within the Psychic's BIS
- 25 81-160 additional minds within the Psychic's BIS
- 30 161-320 additional minds within the Psychic's BIS
- 35 321-640 additional minds within the Psychic's BIS
- 40 641-1280 additional minds within the Psychic's BIS
- 45 1281-2560 additional minds within the Psychic's BIS
- 50 2561 or more additional minds within the Psychic's BIS

PSYCHOKINESIS

Class: Force/Concentration

Type: Depends on the ability (see below)

Psychokinesis (PK) allows a psychic to manipulate small objects. The greater number of ranks employed, the greater amount of mass a psychic can affect. Every rank used allows the psychic to affect approximately 5 kilograms of mass. For each rank used the psychic can move the affected object 1 meter/second with zero acceleration. When attempting to effect a living target, the psychic's maneuver roll is modified by the target's DB.

Fine Manipulation of PK

Fine manipulation is accomplished through a second skill roll used as a moving maneuver. It is even possible for a psychic to manipulate weapons at a distance. However, the psychic should develop a Directed discipline to gain an attack bonus with a specific weapon. Range modifications are determined by the psychic's Impedance and the weapon's range modifications apply as well.

PK Restrictions

PK is independent of the psychic; there is no action/reaction between the target and the psychic. For example, a psychic could not grab a passing hovercraft and be dragged along. Similarly, a psychic cannot directly affect himself with his own PK. PK affects a target as a whole; a target cannot be 'squeezed,' bent or torn apart. Additional targets may be affected for a cumulative (-10 modification) per target, but the psychic is still restricted to the amount of mass he can affect by the number of ranks employed.

Option: Normally, a psychic is limited to a finite amount of mass per Rank employed (regardless of the maneuver success). This particular expansion allows a psychic to manipulate a greater amount of mass based on the success of his maneuver. If a psychic achieves a success over 100, he can use that value as a percentage of increase to the normal Rank limit. For example, 5 Ranks of PK will affect approximately 55 lbs. If a psychic maneuver result is 105, then he can actually manipulate approximately 57.75 lbs (55 x 5%).

Some of the documented abilities are shown below (each ability should be developed separately).

Hurling (Directed)—The Psychic can "throw" things. Damage is determined on the Fall/Crush Attack Table. Interpret the "Maximum Results For Falls of x' - x'" as kilograms. For example, if the psychic is hurling an object of 8 kilograms at a target, his maximum damage would be limited by the maximum results for 1' - 10' range on the Fall/Crush Attack Table. If the psychic hurled 75 kilograms at a target, his maximum damage would be limited by the maximum results for 51' - 100' on the Fall/Crush Attack Table. The psychic could hurl certain items that might generate more concussion hits or special criticals. For example, a 10 kilogram spike-covered mace head dripping with caustic acid; if the target was hit by this unusual attack, he would suffer the usual damage from the mass used, but he may also suffer 2x damage and an acid critical (subject to GM's approval)!

Field (Non-Attack)—The psychic surrounds himself with a field of force which acts as armor. For every 2 ranks employed, the armor value of the field is raised by one point. For every -5 modification, the psychic may protect an additional one cubic meter of material.

Shield (Non-Attack)—The psychic creates a mobile "shield" which he can use to defend himself from incoming attacks. Each rank used gives the psychic a +2 defensive bonus. The psychic can only interpose the shield against attacks he can perceive. The shield can be used at a distance up to one meter away per rank employed. This shield is effective against energy and physical attacks. The psychic can deflect any number of attacks per round; however, if any attack succeeds (gives damage), no more deflections are possible that round.

Wall (Non-Attack)—The psychic erects a static wall with a surface area of one square meter per 2 ranks employed. The wall's initial AT is 1 with 5 concussion hits; for each additional 2 ranks, the wall's AT can be raised by 1 with a +5 DB and +5 concussion hits. The wall is two-dimensional and need not rest on any surface. If a wall suffers damage in excess of its hits, it immediately dissipates.

PSYCHOMETRY

Class: Information/Concentration

Type: Standard

By concentrating on the psychic energies which often are absorbed by items/places that have experienced particularly extreme emotional or "psychical" events, a psychic is able to ascertain important images and feelings about the items or places by touching them and concentrating. For a -5 modification, the psychic will get the most important emotional event that the item/place was in proximity to (GM's discretion). For a -10 modification, the psychic can ascertain if a particular event was associated with the item/place. For a -15 modification, the psychic can discern the purpose of the object and a basic impression of the owner (the likes/dislikes or maybe strongest beliefs). For a -20 modification, the psychic gains a mental picture of the various owners and the emotional events each of them experienced while in close proximity to the item/place. For a -25 modification, the psychic can learn the name of the individual with the strongest emotional tie to the item/place. For a -50 modification, the psychic may get a glimpse of a future event that will be associated with the item/place. For a -75 modification, the psychic may erase an event from an item/place.

Psychometry can be dangerous due because an overload of sensation could occur. There is no way to know how powerful the emotions and feelings he will encounter through an object or place may be. When the GM deems it appropriate, the psychic must make a skill roll and break 100 in order to control the sensations he might receive. This roll must be modified based on how traumatic the event is (especially if the psychic experienced a similar trauma in his own life). If the psychic is unable to control these feelings, he may only be disoriented for a few hours (for a slightly failed skill roll), or could have days of disorientation with a -10 to -70 to all activity (a badly failed skill roll). The GM should note that if there is no emotional trauma or deeply set beliefs associated with a particular item, the Psychic might gain no information.

PYROKINESIS

Class: Force

Type: Depends on the ability (see below)

Pyrokinesis is a form of Psychokinesis that manipulates heat radiation. Some of the documented abilities of this discipline are shown below (each must be developed separately).

Pyrokinetic Shield (Non-Attack)—The psychic is able to create a skin-tight field about himself that protects him from intense heat. For every rank employed, the psychic can withstand +10 degrees Celsius. +2 bonus vs. heat attacks per rank employed. Criticals suffered from extreme heat or heat based attacks may be reduced by one level with a successful maneuver roll: 'A' criticals are resolved as (hard); 'B' (very hard); 'C' (extremely hard); 'D' (sheer folly); 'E' (absurd).

Pyrokinetic Bolt (Directed)—The psychic can shoot forth a bolt of powerful heat energy. Damage is determined on the Blaster Attack Chart using Heat Criticals. The base OB is the bonus the psychic has developed with this skill. At least five ranks must be employed to achieve a Mark#1 attack (i.e., no attacks are allowed until at least five ranks are developed). Ten ranks would yield a Mark#2 attack, and so on up to Mark#5. Damage multiples can be achieved with a successful maneuver: x2 (medium); x3 (very hard); x4 (extremely hard); x5 (sheer folly); x6 (absurd). When attempting to gain damage multiples, if the psychic fails to achieve 100%, the damage is considered x1.

Temperature Control (Standard)—For each rank employed, the psychic can raise the temperature of approximately one cubic meter of mass (includes air) at one kilogram 10° Celsius.

Flame Control (Standard)—Pyrokinetics have the ability to instantly ignite normal flames when there are combustibles available. One rank is required.

Hyperthermia (Standard)—A psychic can raise the temperature of a target rapidly enough to do serious damage. Target suffers damage based upon the amount the psychic exceeds 100 with his maneuver roll. A success of 1-10 over 100 = 'A'; 11-20 = 'B', etc. All criticals are Heat.

RADIOKINESIS

Class: Force

Type: Depends on the ability (see below)

Radiokinesis is a form of Psychokinesis that manipulates hard radiation. Some of the documented abilities of this discipline are shown below (each must be developed separately).

Radiation Shield (Non-Attack)—The psychic is able to create a skin-tight field about himself that protects him from intense radiation. For each rank used, the psychic gains a +2 bonus vs. radiation attacks. Criticals suffered from extreme radiation or radiation based attacks may be reduced by one level

with a successful maneuver roll: 'A' criticals are resolved as (hard); 'B' (very hard); 'C' (extremely hard); 'D' (sheer folly); 'E' (absurd).

Radiokinetic Bolt (Directed)—The psychic can shoot forth a bolt of powerful radioactive energy. Damage is determined on the Blaster Attack Chart using Radiation Criticals. The base OB is the bonus the Psychic has developed with Radiokinesis. At least five ranks must be employed to achieve a Mark#1 attack (i.e., no attacks are allowed until at least five ranks are developed). Ten ranks would yield a Mark#2 attack, and so on up to Mark#5. Damage multiples can be achieved with a successful maneuver: x2 (medium); x3 (very hard); x4 (extremely hard); x5 (sheer folly); x6 (absurd). When attempting to gain damage multiples, if the psychic fails to achieve 100%, the damage is considered x1.

Radiation Control—For each rank employed, the psychic can raise/lower the radiation level of approximately one cubic meter of mass (includes air) 50 rads.

RAW CHANNEL

Class: Mental/Concentration

Type: Standard

With this discipline a psychic can attack a target with pure psychic energy. For every two ranks used, the target is at -5 to all actions and loses two concussion hits. Additional targets may be attacked for a -10 modification for each target.

SENSE DESTRUCTION

Class: Mental Attack/-

Type: Standard

This discipline allows a psychic to block the target's neuro-centers of a sensory perception. Target's affected sense is lost for a number of rounds equal to the number of ranks employed. For each additional -5 modification, an additional sense may be blocked; for each additional -10 modification another target may be simultaneously attacked. For a -50 modification the psychic may choose to destroy the targeted sense. A sense targeted for destruction is permanently modified by the maneuver's success over 100. To further damage the sense, the psychic must attain a greater success than before. For example, if the psychic attempted to destroy a target's sight and the maneuver result was 130, the target's sight would be at -30. If the psychic wanted to further debilitate the target, he would have to achieve a greater success than 130 to do so. If his second attack resulted in 155, then the target's sight would be modified to -55.

SENSE DISCIPLINE

Class: Utility

Type: Non-Attack

This discipline allows the psychic a bonus of +2 per rank employed to skills involving perception. With it he can increase his effectiveness in maneuvers requiring touch, hearing, taste, smell and sight. The bonus must be equally split if more than one sense is enhanced.

Example: *Francois Bouquet, a famous wine taster, is currently in a heated contest with a young upstart. There were originally 1,000 entrants, but it has come down to just Francois and the upstart. The score is tied and there is only one bottle left to examine. Francois cannot risk losing so he employs 20 ranks for a bonus of +20 to his taste and +20 to his smell. Surprisingly, the young upstart still wins by going as far as naming the man who corked the bottle! Francois carefully looks at the upstart and can only smile... obviously the boy was using Psychometry!*

SHADOW MIND

Class: Utility/Subconscious (programmed)

Type: Standard

Allows psychic to set up a shadow image of his own mind, allowing him to 'fool' Probes and Detections. Whenever a Probe or Mental Detection attacks the psychic's mind, the Shadow Mind is instantly triggered. The psychic must then make a static maneuver. If the net result is greater than that of the attacker's PMAR, the Shadow Mind holds, and the psychic can feed the attacker whatever nonsense he wishes the attacker to know.

SLEEP

Class: Mind Attack/-

Type: Standard

Targets fall into a deep, un-wakable sleep for a number of rounds equal to one half the number of ranks employed in the attack. The target may be awakened normally after the duration has expired. This discipline may also be used to awaken a target suffering the effects of a Sleep Discipline. There is a -10 modification for each additional target.

SUGGESTION

Class: Mind Attack/-

Type: Standard

The psychic is able to induce the target to follow a suggestion. The suggestion can have a number of words equal to the number of ranks employed. The target may attempt to resist the suggestion with a successful maneuver roll (modified by his SD modifier). If the target succeeds, he is free of the suggestion. The roll is modified by the net result of the psychic's roll exceeding 100. The psychic may also influence an additional target for a -10 modification per target. Suicidal suggestions allow the target an immediate chance to ignore the suggestion (with a +50 modifier). Subsequent resistance checks may be attempted (at GM's discretion).

TELEPATHY

Class: Passive (direct)/Concentration

Type: Standard

Telepathy allows a psychic to mentally communicate with another mind. Telepathy does not allow the psychic to read the thoughts of a target (see Probe); it only allows communication. Furthermore, no emotion is transmitted (see Empathy). The communication consists of either images or voice or both. For every -5 modification, the psychic may include another mind beyond his own plus one other. For a -5 modification, the psychic may link two different minds other than his own so that they may communicate directly. The psychic is able to take part and hear all communication in any case. There is a minimum requirement of +0 modification for one way communication (images only) to a target; -5 modification for two-way communication (images only); -10 modification for two-way voice and image communication. Target may resist a telepathic communication if he desires. It is important for the player of a telepath to remember that beings think in language. So a telepathic communication may not be understood by a being who does not understand the language the character uses. Images remain universal, however, and all that a psychic risks when trying to communicate in images is his esthetic reputation. Telepathy is limited by the psychic's BIS but suffers no impedance.

TELEPORTATION

Class: Force

Type: Standard

The psychic is able to transfer himself from one location to another. The Psychic must be completely familiar with the location desired. Teleporting to a location that has never been personally visited has a percentage chance equal to 100 - the number of ranks employed of failing and instantly killing the Psychic. For every -10 modification, the Psychic may transport another mass equal to or less than his own.

TELESTHESIA

Class: Passive(direct)/Concentration

Psychic is able to use the eyes, ears, etc. of others. This sensory input is limited to the target's senses. Any extraordinary sensory abilities of the target may also be used if the psychic would normally be able to use such abilities. The psychic uses the bonus for this discipline as a Perception bonus when sensing through the target. The psychic can continue to receive sensory input from target as long as the target remains in the psychic's BIS.

TRANSFER

Class: Mental Attack

Type: Standard

The psychic is able to transfer his conscious mind into that of the target, leaving his own body in a coma-like state. The psychic may stay indefinitely, seeing all the target sees, etc., unable to control the target and will not be able to use any of his abilities (except transfer back to his own body). If the target's body dies, and the psychic's body is not within his BIS, the psychic's conscious mind dissolves and he is forever lost (see below). To transfer back to his own body, a maneuver roll is required modified by normal Impedance. If the roll is successful, the transfer to his own body is successful; if the roll is failed, his essence is lost to the mental plane and he becomes a discorporeal entity unable to affect the material world except through Mediums.

Another psychic may attempt to force a transferred mind out of a target by attacking the "hitchhiking" mind. If the target fails to fend off this attacker, normal rules for transferring back to the body apply.

TRANSMUTATION

Class: Force/-

Type: Standard

The psychic is able to transmute any pure element into another pure element. The amount of material which can be affected is one milligram per rank employed. For the transmutation to remain stable, the psychic must make a successful skill roll modified by -2% per (1) rank employed. If the psychic fails his skill roll, the transmutation only lasts for one round per rank employed.

ULTRASONIC /HYPERSONIC HEARING

Class: Passive(direct)

Type: Non-Attack

The psychic can hear very high and very low frequency sounds (e.g., dog whistles, low subsonic noise of an approaching earthquake). Range is limited that of normal hearing. The Perception roll bonus is equal to the number of ranks employed.

ULTRAVIOLET VISION

Class: Passive(direct)

Type: Non-Attack

The psychic can see in nighttime as well as day. There must be some source of ultraviolet radiation (e.g., stars) for the Psychic to see. Range is that of normal sight. The Perception roll bonus is based on the number of ranks employed.

DISCIPLINE TERMS AND DEFINITIONS

Healing Discipline—a discipline which removes, either temporarily or permanently, physical or mental damage from a target.

Utility Discipline—a discipline that doesn't physically or mentally affect anyone or anything but the psychic.

Subconscious (waiting) Discipline—a discipline that is employed but once, and thereafter triggered by the subconscious when a specific, self-effecting condition(s) is met (e.g., Unstun). Once triggered by the subconscious, it does not need to be consciously employed again.

Subconscious (programmed) Discipline—a discipline that is employed in advance of its actual effect. These discipline types are triggered by the subconscious when a specific, external condition(s) is met (e.g., Detection). Once triggered by the subconscious, it must be consciously employed (set up) again.

Passive (indirect) Discipline—a discipline that involves another person or thing, but not actively (target will not be aware of its use unless he has a metasense or a detection type discipline active).

Informational Discipline—a discipline which gathers information.

Passive (direct) Discipline—a discipline that involves another person or thing actively, but is not classified as an attack (i.e., does not cause mental or physical harm).

Defensive Discipline—allows the psychic to resist or withstand the effects of a discipline, the elements, etc.

Force Discipline—involves the manipulation of matter and/or energy, external and separate from the psychic (e.g., all kinetic effects, etc.).

Mental Discipline—a discipline that directly affects a target's mind.

Concentration—effect(s) of the discipline is applied to the target for as long as the psychic maintains concentration. The psychic can perform only 20% activity until concentration ends. The psychic cannot employ any other Disciplines (other than those already active) while concentrating. Any action other than simple movement, including any attacks the Psychic may suffer, will require a maneuver roll to avoid losing concentration.

Permanent—Discipline has a permanent effect by creating a physical or mental condition. After the employing process is complete (or after the psychic no longer concentrates) the effect may be altered by external forces (i.e., the discipline effect may be cured, disturbed, eroded, etc., by another discipline or physical force). For example, if a discipline creates a "permanent" ice cube, it will melt and evaporate normally after the discipline is employed.

Instantaneous—a discipline whose effects are immediately applied to the target. These disciplines may not be maintained in a Psychic's Fatigue Free Reserve.

Modifications

- 20	Non-attack discipline that affects only the psychic
-10	Non-attack discipline that involves matter/energy only
+ 0	Non attack discipline that involves another living creature
+ 10	Mental Attack Disciplines
+ 20	Directed Attack Disciplines

DISCIPLINE FAILURE CHART

(-19)-05	Lose concentration. Discipline lost, not MFPs.
06-20	You have second thoughts; Discipline lost, not MFPs.
21-35	Indecision, mild mental lapse. Check next round.
36-50	Serious mental lapse. Discipline lost; not MFPs. -30% activity for 3 rnds.
51-65	Moderately serious strain. Discipline and MFPs lost. Stunned for 1 rnd.
66-75	Subconscious fear. Discipline and MFPs lost. Stunned for 2 rnds.
76-79	Discipline internalized. Stun 3-30 rnds. +15 hits.
80	Discipline internalized. Knocked unconscious for one hour. +15 hits.
81-86	Serious strain. Discipline and MFPs lost. Stunned for 10 rnds.
87-89	Internalization; sense overload. Blinded and deaf for 60 rnds. +20 hits.
90	Strain causes mild stroke. Knocked unconscious for 12 hours. +20 hits.
91-96	Severe strain causes misfire. Stunned for 15 rnds. +5 hits.
97-99	Target's powerful mind causes discipline to backfire. Reverse roles of target and psychic for discipline's effects.
100	Identity crisis. Lose psychic capabilities for 2 weeks.
101-106	Extreme mental pressure causes misfire. Knocked down. Stunned for 6-60 rnds. +10 hits.
107-109	Psychic internalizes discipline. Lose all psychic abilities for 3 weeks. Unconscious for 3 hours. +25 hits.
110	Strain causes severe stroke. Paralyzed from the waist down.
111-116	Discipline strays 5 meters right of target. Stunned 3 rnds.
117-119	Discipline strays 15 meters right of target. Stunned 3 rnds.
120	Mental collapse. discipline is employed in direction opposite to intended line. Lose all psychic abilities for 100 days.

5.6 PSYCHIC SKILLS

CREATING 'ONE MIND'

There are three methods of psychically joining: Massing, Channeling, and the Metaconcert. In each instance, the participants must be within each others BIS.

Massing (SD)

Two or more psychics decide on a specific discipline and choose a 'focus'. A focus can be any participating psychic who has the desired discipline. All psychics then concentrate on the 'focus' by making a Massing maneuver roll adding +1 for each participating psychic (including the focus). Each individual who succeeds contributes +1 per skill rank they employ to the discipline maneuver rolls of the focus. Participants who do not

succeed contribute nothing, but do not hinder the Massing. Massing will not aid in Directed Attacks and each participating psychic (except those that failed their maneuvers) must expend the same amount of MFPs that the focus requires to employ and maintain the discipline each round.

Channeling (SD/In)

Similar to Massing, except all participating psychics make their MFPs available to the focus. All psychic's must maintain concentration and make a successful maneuver roll every 6 rounds to maintain the 'channel' to the focus. The focus can use any of his disciplines he desires. Maneuver rolls are modified by any penalties accrued for MFP loss.

Metaconcert (SD/In/Re)

This skill allows multiple psychics to combine their psyches into one mind for the purpose of generating greater power and range. The developed skill bonus is used as a percentage to determine what portions of each participating Psychic's NAR, Level, BIS, and MFPs he is able to contribute to the 'one mind'. Unless specified in advance, the psychic who is able to contribute the greatest NAR is in control of the single mind.

The most significant benefit of the 'metaconcert' is the availability of all the disciplines of all the psychics involved, and the ability of the controller to function independently of the group while managing the increased resources. If the controller is knocked unconscious, or killed, or if any of the non-controlling psychics is rendered unconscious, or killed, the 'metaconcert' ends. The controller may choose to end the 'one mind' at any time. Any non-controller may withdraw by making a 'Very Hard' maneuver roll modified by their SD modifier.



Example: *Aunt Mind, Thinkerton, and Overmind were very close in their youth. One day, while playing in the Arboretum of the Institute, they witnessed a heinous crime against another student. The assailant, Evilmind, was a well-known graduate presumed to have consummate power. He saw them as they were sneaking away, and knew he would have to deal with them as he had done with his victim. Our trio sensed his thoughts and decided to make a stand.*

Aunt Mind's NAR was 10, Thinkerton's was 12, and Overmind's was 15. Using their Metaconcert skill bonuses, Aunt Mind contributes 5 (45% of 10), Thinkerton contributes 6 (50% of 12), Overmind 5 (35% of 15) for a NAR total of 16. The process continued for levels, BIS, and MFPs resulting in a new level of 9, a BIS of 1369m, and MFPs totaling 345!

With the increased resources, Overmind and his friends fought a pitched battle. But Evilmind, dwarfed by the sudden and unexpected increase in power, fell helplessly before them.

IMPEDANCE MASTERY (SD)

This skill allows the psychic to cancel a portion or all of the impedance modification associated with long ranged attacks. The bonus gained from this skill is used to reduce the modification from Impedance. Impedance Mastery must be developed for individual disciplines. Impedance Mastery is only used to cancel range modifications (i.e., it cannot create a positive modifier—it can only negate a negative range modifier).

Example: *Cerebellum has a Impedance Mastery bonus of 35 and is attempting to place a target to sleep. Not wanting to get any closer to the target and risk detection, Cerebellum attempts his discipline from 50 meters away. He is 5th level so his Impedance Modification would be -50 ((50/5) x 5). Cerebellum applies his Impedance Mastery Bonus and the new modification is (50-35) -15.*

After robbing the sleeping target, Cerebellum leaves the room and proceeds quietly down the stairs of the fire exit. He unexpectedly encounters a couple coming up the stairs. Not wanting to be seen in the building, Cerebellum attempts to put the couple to sleep. They are only 20 meters away when he notices them. His Impedance Modification is -20 ((20/5) x 5). Applying his Impedance Mastery Bonus yields +15 (20 - 35) but treated as 0.

DIRECTED DISCIPLINE MASTERY (SD/Ag)

Directed Discipline Mastery is used to reflect a Psychic's expertise with a Directed Discipline or kinetic attack. The bonus developed with this skill is added directly to the attack roll. Directed Discipline Mastery must be developed for individual disciplines.

MIND MASTERY (RE/SD)

This skill is necessary for a Psychic to develop the fundamental defense of his mind. This mental toughness is rated in terms of Mental Armor Type (MAT). A Psychic's base MAT is determined by the average of his Self Discipline and Reason using the MAT Chart.

Avg of Temp Stat Values	Mental Armor Type (MAT)
75-89	A
90-94	B
95-97	C
98-99	D
100	E
101	F
102	G
103	H
104	I

For every rank developed with this skill, the Psychic gains a chance to permanently increase his MAT by one level. The Psychic targets himself, at his current MAT, with this skill, just as if he were using a Standard Discipline. The Psychic makes an open-ended roll using only his Mind Mastery bonus (there are no other modifiers). If he achieves 100+ on the Psychic Maneuver Chart he increases his MAT by one level; his Mind Mastery bonus falls to zero (0); and he must begin developing his Mind Mastery skill again versus his new MAT to increase to the next level.

5.7 TALENTS

Talents, or Hybrids, are Psychics that have acquired a group of strongly related Disciplines through selective genetic manipulations. All Talents have a +5 modification to their Self Discipline and gain one additional Discipline of their choice over what they are normally allowed to have (considered a by-product of the genetic manipulations). Talents must have a minimum SD of 95 in order to select one of the following Talent Types. The GM is encouraged to develop other Talent Types (the list below is intended to be a sampling.

Telepath

Telepathy, Telesthesia, Mind Shield, (player's choice)

Empath

Empathy, Suggestion, Confusion, (player's choice)

Kineticist (Pyro, Hydro, Electro, Tele, Photo)

(Appropriate Kinetic), Raw Channel, Disruption, (player's choice)

Seeker

Probe, Metasense (define), Psychometry, (player's choice)

Shadow

Concealment, Sense Discipline, Astral Projection, (player's choice)

Mind Slayer

Mind Death, Pain, Paralyze, (player's choice)

Sandman

Sleep, Behavioral Trigger, Suggestion, (player's choice)

Possessor

Memory Alteration, Transfer, Exteriorisation of Sensitivity, (player's choice)

Healer—Mind, Body

Any three from the Healing category, (player's choice)

MEDIUMS

These special psychics sometimes unwittingly channel psychic energy from discorporeal minds. Some Mediums tap this power and wield it as their own with the approval and/or cooperation of the discorporeal entity. Other, advanced types, reach much further and contact the power of alien minds not of this world.

Mediums generally manifest themselves in three forms: a) an uncontrolled channel through which others, living or dead, can focus their powers; b) able to control the power channeled through them voluntarily by discorporeal minds; c) "capture" discorporeal minds and use their power for their own purposes.

Depending on the Mediums purposes and demeanor, they can "shop" for specific abilities and attempt to bind the discorporeal mind the "purchase" to their will. There have been some Medium Cults that purposefully seek out living Psychics with specific attributes and sacrifice them so that their psyches can be bound for the organizations own purposes.

Mediums are developed exactly as normal psychics. The Medium treats his powers as a single bound mind that is anchored to his own. During the course of the campaign the GM introduces additional minds that the Medium can swap for his current mind. Sometimes these discorporeal minds are intelligent, benevolent, or otherwise. The Medium must take his chances when "swapping" because he has no way of knowing if the new mind has better Disciplines or possibly none at all!

A Medium swaps minds by attempting to bind the new mind in place of the former. This is accomplished through an Absorption Maneuver (see Absorption Duels below). if the Medium succeeds he has bound the mind.

There are some discorporeal minds powerful enough to use their powers across the fabric of the Mental Plane and directly attack a Medium who is attempting to bind them. If the discorporeal mind is successful he has effectively bound the Medium and once again has a foothold in the physical realm.

Mediums are sometimes referred to as Psychic Vampires because their powers are those of the "Psychic Undead."

WILD TALENTS

Wild Talents possess only one discipline and can develop this ability without the normal skill bonus degradation. For example, when developing the 11th rank with his discipline he gains a +5 bonus instead of +2 as would a normal psychic. Wild Talents always have sight as their targeting sense (or whatever serves as sight for that particular species).

Wild Talents are highly sought after by must governments and influential/affluent organizations/people because of their potential power. A Wild Talent with a useful discipline such as Transmutation could be a real profit center! Wild Talents are also highly sought after by Mediums.

VOIDS

Voids are probably the most valued type of psychic; they cannot be affected in any way by mental psychical attacks or mental detections! As sought after by the powerful as the Wild Talent, a Void can make a very good living as a security professional or politician, etc.

During the construction of his character, a player must choose to be a Void. A Void can never learn or employ any sort of psychic discipline.

5.8 BONUS ITEMS

There exists mundane items of current design, and even artifacts of the Ancient races which predate current civilizations, that will augment a psychic's meager abilities. The following list is by no means exhaustive, but is included as a suggestion.

MFP MULTIPLIERS

The inherent MFPs of a psychic with a discipline multiplier are increased by the factor of the item. For example, a psychic with a "x2" item and an inherent MFP total of 30, has a net MFP total of 60 points.

NAR ENHANCERS

Similar to MFP Multipliers, these items add or multiply the amount of NAR space available to a psychic.

BIS ENHANCERS

These coveted items increase a psychic's BIS and may also reduce the standard Boundary Impedance multiplier of 5 down to 4, 3 or even 0!

LEVEL ENHANCERS

Allow a psychic to operate at a higher level of mastery. This could benefit a number of things, including maneuvers and impedance modifiers.

FFR ENHANCERS

Increases the FFR.

DISCIPLINE EMBEDMENTS

Certain devices or items may have disciplines built, stored, or encoded within them, and when 'used' by the psychic, allow him to access its abilities. These sources are almost always sentient and 'allow' themselves to be used.

MISCELLANEOUS

Various factors may be introduced to affect a psychic's abilities in a given situation. For example, a strong spirit's proximity to a psychic might result in increased MFPs, or proximity to areas rich or poor in unmined focus crystals might affect a Psychic's power. These factors should be decided upon by the GM.

PSI-BERNETICS

These sophisticated devices are similar to cybernetics except that they are controlled directly through psychic impulses from the mind (and therefore require none of the usual neuro-wiring). The disadvantage to the recipient is that it requires a slot in his FFR to operate the appliance. The Psychic can reclaim the FFR slot at any time but the appliance will become useless upon the slot's removal. Re-alloting the FFR slot requires concentration (a full round). The GM can substitute any cybernetic and re-introduce them as Psi-bernetics.

Note: GMs must be very careful in handing out bonus items as they can distort the game's balance. Any type of power enhancer should be relatively rare and expensive. Only one item should be usable by any one character between periods of rest (possession of two x2 MFP items does not multiply your points by 4), and items should be usable by only one character per day (time before re-attunement). All items should have very specific and unique methods for them to properly function. Some items are required to be held (or at least worn) when used (e.g., a Psychic would have to wear his x4 Focus crystal on a pendant around his neck if that were the form of his bonus item). Other items may be Discipline specific. For example, a x3 device might require the Psychic to possess the Discipline Sleep in order to function properly even though it may not augment that particular Discipline.

5.9 THE MENTAL PLANE

Sometimes referred to as the Astral or, in some cultures, the Ether plane, the Mental Plane is the home of discorporeal minds. It is a realm of pure thought; the foundation for psychic mythology. Though some scientists can now alter a normal human mind to the point where it can manipulate Psychic energy, those who believe in the Mental Plane suggest that these scientists have only succeeded in opening the biological channels necessary to allow the power of that realm to enter into this one. The scientific vs. mystical debate rages on.... The Mental Plane is as varied in color as normal outer-space itself but unlike outer-space it has a texture; detectable to the most basic of psychic capable minds.

When a Psychic dies, his "mind" enters the Mental Plane. Upon arriving, there are several things that happen. The first and most threatening danger is neural dissolution. A discorporeal mind must make a maneuver roll vs. its own MAT to not dissipate into the fabric of the plane. If it fails, it is lost forever. If it succeeds, it then has the opportunity to become "aware" of its environment. A second maneuver roll, again vs. its own MAT, is necessary to determine if this occurs. If the discorporeal mind fails this second maneuver it becomes inert and eventually loses all personality and becomes nothing more than a collection of lobotomized experiences (there are entities within the Mental Plane whose sole source of suste-

nance are these very unfortunate minds). However, if the discorporeal mind succeeds then it is aware of its environment and may interact and move through it.

An aware discorporeal mind (hereafter called a 'discorporeal') begins a journey unlike anything it has experienced before. It has potential access to all the knowledge of the ages; not only of its own world, but of many, many others! Moving through the Mental Plane, (not unlike floating or flying) the discorporeal enters many things. It will encounter thought storms—swirling masses of unfocused thoughts that can penetrate a discorporeal and render it insane. There are miniature worlds; discarded images/feelings from another Discorporeal that may be entered and interacted with (most are of very painful experiences that the former owner could not bear). There are other discorporeals making their way about; thriving social structures attempting to settle in to a new way of life. Finally there are also those discorporeals who did not 'naturally' arrive here. They are strong and continuously look for opportunities to re-enter the world they were dislodged from.

Throughout the Mental Plane there are constant flashes of bright, sphere-shaped conduits that link the Mental Plane to the myriad worlds that it intersects. Some are naturally occurring, others are artificially created. The artificial conduits are directly aimed at specific or simply very strong discorporeals. If a discorporeal finds itself within one of these conduits it has the oppor-

tunity to re-enter a physical realm. Sometimes this is as easy as wanting to, or sometimes it is an attempt to enslave the discorporeal. In any case, return to a physical realm requires a receiving vessel of some sort that has the ability to maintain the complex neural patterns of a Discorporeal.

This is only a brief introduction of the Mental Plane. The GM is encouraged to develop more specifics for his own unique world.

ABSORPTION DUELS

One of the most common ways a discorporeal entity can travel from the mental plane to the physical plane is through an absorption duel. This table is used by Discorporeal Minds/Mediums/Devices that attempt to take over a mind. A Psychic who fails to resist the initial contact by one of these entities must duel with the attacker until one or the other is either absorbed, both become too exhausted to continue, or both yield. The defender's mental defenses and MAT only apply to the initial contact; afterwards all the defender has left to help him is his courage and luck!

Dueling Procedure

- 1 Each combatant makes an open-ended roll modified by their SD. The Defenders total is subtracted from the Attackers total and the result is referenced on the Absorption table. Any results/opportunities are immediately applied/taken.

ABSORPTION TABLE

Attack Rolls	Attacker	Defender	Non-Psychic Defender
150 or more	Success! You have broken through your opponent's defenses. You have earned a place in the physical world. You may now absorb and/or enter your target's body.	Defeat! Your opponent has crushed your feeble mind. Lose 20 MFPs. You have been absorbed and are consigned to the mental plane.	You reel in confusion as suddenly you feel eerie sensations coursing through your mind.... Slowly everything begins to turn black....
66 to 149	+25 to next roll (+25)	Lose 15 MFPs (-25)	-30 to next roll
51 to 65	+15 to next roll (+15)	Lose 10 MFPs (-15)	-20 to next roll
26 to 50	+5 to next roll (+5)	Lose 5 MFPs (-5)	-10 to next roll
-25 to 25	Nothing gained or lost.	Nothing gained or lost.	Nothing gained or lost.
-50 to -26	-5 MFPs (-5)	+5 to next roll (+5)	Nothing gained or lost.
-65 to -51	-10 MFPs (-15)	+15 to next roll (+15)	Nothing gained or lost.
-149 to -66	-15 MFPs (-25)	+25 to next roll (+25)	Nothing gained or lost.
-150 or less	Defeat! Your opponent has withstood your assault. Lose 20 MFPs. You have been absorbed and are consigned once again to the mental plane.	Success! You have maintained your place in this world. You may now attempt to employ an attack discipline at +25, disengage, or absorb the intruder's mind.	You sigh in relief as you push the invading presence from your mind.

- 2 The total is added to the next result of Step 1 (if any), until one combatant has won the contest.

Absorption Results

The loser of an absorption is forced into the mental plane to wander as a discorporeal entity.

Example: *Graymatter discovers an intriguing crystal on a long forgotten moon near Benoli IV. Upon touching the crystal he unknowingly creates a conduit to the mental plane. On the mental plane a bright sphere forms attracting all forms of discorporeal entities to it; the first one through may get a chance at freedom!*

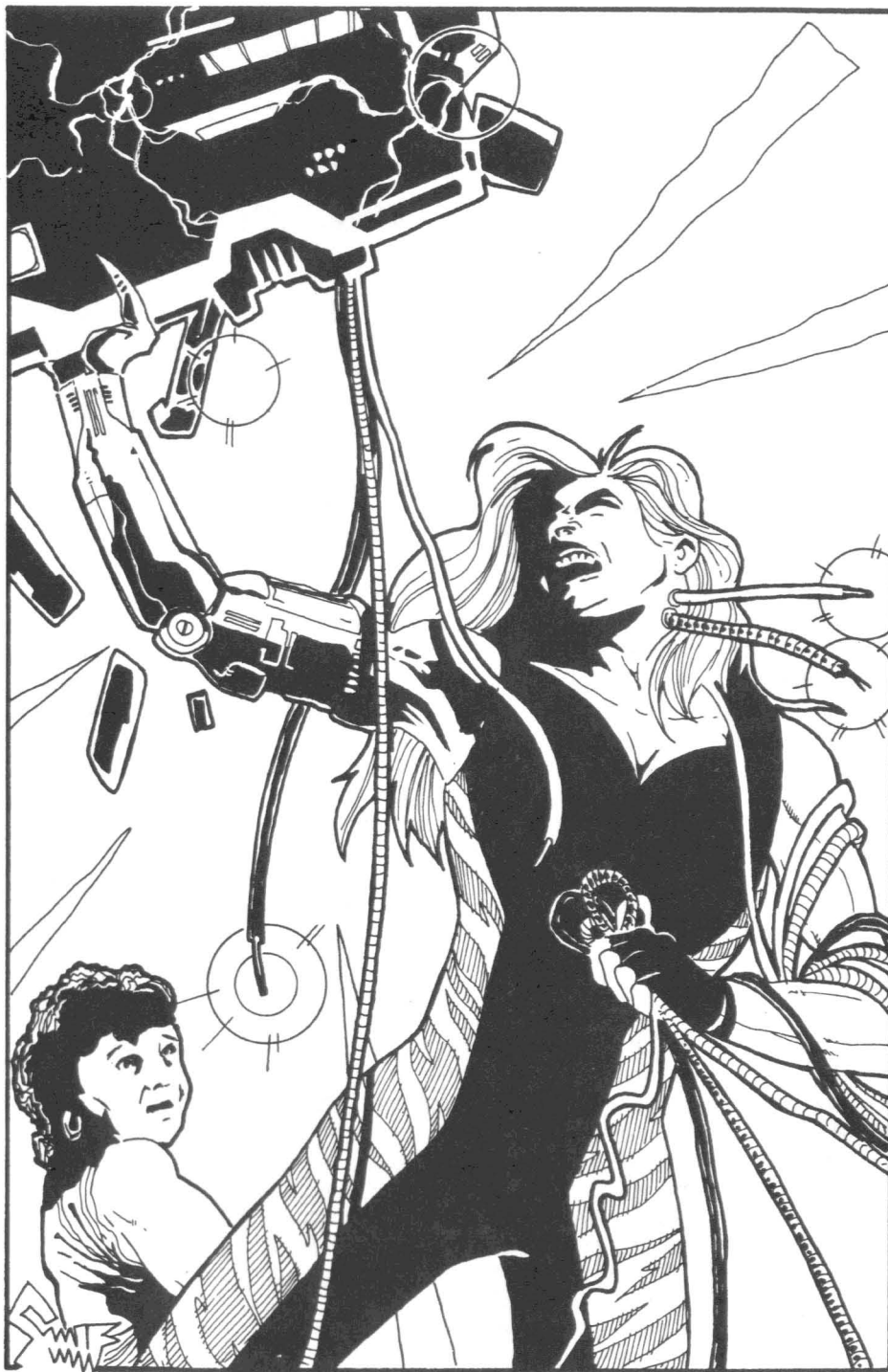
A discorporeal entity makes contact and attempts to force Graymatter into an absorption duel. The entities initial attack succeeds in getting past Graymatters defensive disciplines and MAT. Graymatter is suddenly aware that he is being forced from his body. He was not strong enough to avoid the initial contact and now braces himself for possible exile.

The initial results are 125 for the entity and 110 for Graymatter. Subtracting 110 from 125 yields +15 "Nothing gained or lost" for both sides.

The second round results in 88 for the entity and 130 for Graymatter. Subtracting 130 from 88 yields -42 plus +15 = -27. The entity loses 5 MFPs and -5 tp his next roll Graymatter gains 5 +to his next roll.

The Third round results in 123 for the entity and 210 for Graymatter. Subtracting 210 from 123 yields -87 plus -27 = 114. The entity loses 15 more MFPs and his next roll is modified by -25. Graymatter gets +25 to his next roll.

Who will win? The duel continues...



ALTERNATE DEVELOPMENT OF SKILLS

6.1 INTRODUCTION

In some *SM* campaigns there is always at least one character that is affectionately called the "tech weenie." By 8th level, the tech weenie has become so proficient as to eat "Complex" construction maneuvers before his main course of Cheerios. The intention behind these new optional rules is to discourage such technological weeniehood and to encourage more roleplaying when performing technical maneuvers. Yet these rules still permit a middle-level Engineer, Tech, or Physician to develop a high degree of proficiency without spending too many of those all-too-precious development points.

The models for these changes are, of course, the real world of engineering and medicine, as well as the *RM/SM* Weapon Skills rules. In real life, every doctor, engineer, or technician starts out as a generalist within his discipline, and later elects to concentrate on one or more area of expertise. Eventually, the studious doctor or engineer becomes a specialist. This course of specialization can easily be made available to the character, but the current rules don't permit it.

And although most one-handed energy and projectile weapons operate with essentially the same user interface, each weapon skill must be developed separately in *SM*. To become a master of arms, considerable effort must be put into learning and mastering each weapon. But since the skills are distinct from one another, several weapons can be studied at a time. Add to these the Targeting and Ambush skills, and one can quickly become highly effective with a variety of weapons. Thus, professionals such as Armsmen and Explorers enjoy benefits of parallel specialization unavailable to Electrical Engineers or Systems Techs.

6.2 IMPACT

For the player, this option means that development of all-around technical skill will cost more than if only the Player Book rules are used. But lower and middle level characters can boast higher skill rank bonuses for narrowly-defined technical maneuvers than if the *SpaMCo I* development rules are used. As usual, the player and the GM will need to work together to determine which specialty skills apply to any particular Research/Construction or Malfunction/Repair maneuver. Only now there are more skills to pick and choose from. Hopefully the division of specialties within each discipline will give players and GMs a better idea of how technology is employed in the *SM* universe.

For strict realism, the GM may wish to limit the amount of specialization available to Engineers by requiring them to declare a field of specialty, such as Electrical Engineering (Microelectronics), Computer Engineering (Secure Systems), or Power Systems Theory (Fission/Fusion). This kind of specialization is an option in *SpaMCo I* for the application of level bonuses to Engineering and Technics skills for their parent professions. The Engineer character would then be obligated to specialize only in a few engineering fields of choice.

An attempt has been made to avoid adding any new specialty skills which cannot be assigned development costs based on direct ancestry to a general skill that already exists. Therefore, some Engineering disciplines lack corresponding Technics skills. The exceptions are Structural, Civil, and Undersea Engineering, for which I have added Construction skills to the Technical category. For now, please use the Fabrication development point cost entries from *SpaMCo I* to develop these Construction skills.

6.3 SKILL DEVELOPMENT

It's pretty simple, really. The original Engineering skills, Medical Sciences skills, and Electrical Technics skills are now separated into one general and several specialty skills. The specialty skills are similar to the specialties recommended in the *SpaMCo I* skill descriptions. General skills are nearly useless to the character attempting to perform Very Complex or Absurd Construction/Research tasks. General and Specialty skills are developed as follows:

- The first 5 skill ranks must be spent on the General category of each of the Engineering and Medical disciplines. These first five ranks allow limited but useful ability in any of the specific applications of these skills.
- After acquiring 5 skill ranks in the General category, the character may develop any of the specialties within that discipline, in any combination or order.
- Up to 10 skill ranks may be developed in each General Category which is accompanied by Specialty Categories. These ten skill ranks may be used for all design, repair, or research maneuvers. Ranks in excess of the tenth may only be applied to teaching maneuvers when the character possesses at least one rank in Education.
- The total bonus for any maneuver is the Skill Rank Bonus for the general skill (up to +50), plus the Skill Rank Bonus of the applicable specialty (unlimited), plus the specialty's Stat Bonus (once only), the Level Bonus (once only) and any Miscellaneous Bonuses (once only). (With rare exception, the key stats are the same for the General skill and all of its Specialty skills.)
- Most Technics skills may be developed in any order and without prerequisite. (The exceptions are Computer and Electrical Technics — see their descriptions below.) The technical specialties are not as strictly differentiated as their corresponding engineering specialties, the former divided only by major differences between the hardware to which they apply.

6.4 ACADEMIC DEVELOPMENT OPTION

For the players who wish to develop their characters' abilities in terms of Academic Degrees, the suggested rules are as follows:

A Bachelor of Science (or Pre-med) degree is earned with the acquisition of:

- 6 skill ranks in the General Category;
- 2 skill ranks in each of at least two Specialty Categories;
- 2 skill ranks in each of at least two of the Technics Categories relating to the same General or Specialty Categories;
- 3 Skill Ranks in Advanced Mathematics; and
- 4 skill ranks distributed among any of the skills in the *Academic* or *Other* classes (these last are subject to GM approval, who is the Dean, among many other things).

Most Engineer and Physician PCs should be able to complete a BS or Pre-med program by 2nd level.

A Master of Science (or Medical Doctor) degree is earned with the acquisition of:

- 2 more skill ranks in the General Category, for a total of eight;
- 2 more skill ranks in at least one of the previously developed Specialty Categories; and
- The successful completion of a Complex Research Maneuver using one of the Specialty Categories developed in preparation for the Master's Degree.

A PhD (or Medical Specialist License) is earned with the completion of:

- 2 more skill ranks in the General Category, for a total of ten;
- 2 more skill ranks in one or more of the previously developed Specialty Categories; and
- The successful completion of a Very Complex Research Maneuver using one of the Specialty Categories developed in preparation for the Doctorate.

The PhD character may at any time open a new field of Research or Engineering by successfully completing an Absurd Research Maneuver on a newly-conceived science or technology that the player can communicate meaningfully to the GM. The character must have the necessary laboratory facilities and construction materials at hand. Upon success, a new Specialty Category should be created in the character's honor, and the character can be granted 4 skill ranks in the new specialty as a reward.

The PC may receive experience points for all successfully completed academic research maneuvers performed in pursuit of their degrees; the amount of experience should be based upon the value of the research to the scientific or medical community. The player will need to communicate the nature of the research to the GM. Needless to say, gobs and gobs of experience points can be had by opening up important new fields of endeavor.

6.5 SKILL DESCRIPTIONS

The specific engineering and medical disciplines are now treated individually. For each engineering discipline, the related technics skills are also listed. The applicable mental and physical stats are given for each discipline. All maneuvers using bonuses for these skills are Static Actions.

CHEMICAL ENGINEERING (In/Re)

Chemical Engineering relates to the design and application of molecules to medical, commercial and industrial uses. In *Space Master*, chemical engineering is one of the oldest, yet least appreciated, technologies. Indeed, if a chemist does his job well, his work will soon be taken for granted by the consumer.

For each skill, use the development cost for either "Medical" or "Industrial" Chemical Engineering, whichever is less for the PC's profession.

General: Bonus for the analysis and manipulation of chemical structure upon demand and the operation of laboratory apparatus: burners, distillation tubes, glassware, separation towers, catalytic field generators, titration columns, etc.

Matter/Antimatter Specialty: Bonus for the refining and processing of Andrium and Durandrium. This skill is only taught by the API, and the character must have access to API engineers and facilities to learn this specialty.

Organic Specialty: The same as "Chemical Engineering (Medical)" in *SpaMCo I*. Bonus for the development of pharmaceuticals, toxins, and foodstuffs by either synthesis or genesis according to specification. In the field, it may also be used to modify the effects or effectiveness of any of the above. The necessary facilities usually do not require extraordinary cost or volume.

Petroleum Specialty: The same as "Chemical Engineering (Industrial)" in *SpaMCo I*. Bonus for the design, development, modification and refining of synthetic materials—plastics, polymers, and conventional fuels. Often, the facilities for Petroleum Engineering require vast amounts of space and higher than average costs.

Superconductor Specialty: A highly specialized skill granting a bonus for the design and synthesis of superconducting materials. In the *Space Master* setting, there are already many known room-temperature superconductors, so this specialty endeavors to find and develop more efficient superconductors, as well as those that can operate over a wider range of conditions.

There is no "Chemical Technics" skill in *Space Master*. Skill in Chemistry or General Chemical Engineering grants the ability to use chemistry apparatus.

COMPUTER ENGINEERING (In/Re) AND TECHNICS (Re/Me)

In the *Space Master* universe, computer science is an old and venerable profession. This discipline develops "access technology," the hardware and software constructs that give humans instant access to vast amounts of information, often distributed over wide and complex networks of processing and storage systems, as well as the ability to manipulate it for profit, insight, and pleasure.

General: Bonus for design and modification of the architecture of single-purpose and simple general-purpose computers and the orderly development of application programs using known languages. (Languages are acquired by skill in Computer Technics.)

Artificial Intelligence Specialty: Bonus for the design and modification of expert systems and machine consciousnesses and for the programming of molecutronic brains.

Languages and Compilers Specialty: Bonus for the creation, modification, and analysis of computer languages and the programs which convert them to machine-readable code; knowledge of the principles of object-oriented programming systems (OOPS), and the programs used to develop optimized code, including Computer Assisted Software Engineering (CASE) and Application Developers (ADs).

Operating Systems Specialty: Bonus for the design, modification, and analysis of the low-level software which permits user control over the computer's hardware and maintenance of data stored in mass media, either on standalone systems or distributed networks.

Secure Systems Specialty: Bonus for the design, modification and analysis of computer hardware and software resistant to unauthorized intrusion, and, by familiarity with such principles, methods to defeat and evade such security methods. This specialty also includes recovery of lost or damaged data and the creation, detection and disinfection of computer viruses, worms, Trojan horses, et. al.

System Design and Analysis Specialty: Bonus for the design, modification, analysis and maintenance of large, complex computer systems, both hardware and software. Typically, such systems serve a particular purpose, such as accounting, process control, communications media, or starship operations.

Computer Technics, Basic Operation and First Language: Bonus for the operation and control of a computer from its intended user interface and for applying the format and syntax of the PC's first language, chosen from the list on page G38. This skill is also used for the specific act of writing the code for a program. This last is distinguished from program design, which requires the appropriate Computer Engineering skill. At least one rank in this skill must be developed before the PC can develop additional languages (below).

Computer Technics, Additional Languages: Bonus for applying the format and syntax of additional languages used to program computers. One additional language from page G38 is learned for each skill rank developed.

CRIME ENGINEERING (IN/RE) AND TECHNICS (AG/IN)

Crime Engineering, or Criminology, is the art of investigation and obstruction of investigations, revealing or obscuring the truth, enforcing or evading the law. A criminologist may be either a cop or a crook but seldom will he totally restrict himself to the practices of one or the other. Therefore, it may often be difficult to determine on which side of the law a criminologist belongs.

General: A broad-scope introductory education in each of the following specialties, this skill provides a bonus for basic detective work and conversely, for avoiding detection. This discipline also involves the design and modification of devices used in various kinds of crimes and criminal apprehension.

Counterfeiting Specialty: Bonus for creating falsified documents, coins and credit as well as for the scrutiny of legitimate originals in the interest of making the "perfect" duplicate. This skill also permits attempts to identify counterfeits with or without the assistance of specialized equipment. The skill enables design and modification of devices to accomplish any of these tasks. Counterfeits are fraudulent duplicates of mass-produced or machine-produced originals, usually money.

Forensics Specialty: This new specialty provides a bonus for the design and modification of devices used to recover of evidence from a crime scene, or alternately, for those used to avoid leaving behind tell-tale evidence. The kind of evidence dealt with in forensics is not just shell casings and fingerprints, but also fiber analysis, lingering radiation patterns, infrared prints, DNA samples, and other minute traces. The evidence can be present on animate or inanimate objects, on corpses or in a computer database... anywhere.

Forgery Specialty: Although forgery seems to be the same as counterfeiting, this specialty is actually its compliment; forgery is the art of duplicating the signature, artistic style, or voice pattern of another humanoid. Forgeries can be created either manually, or with the aid of devices designed or modified using this skill. A master forgery is said to be best accomplished when actually thinking like your subject, having put yourself in the victim's shoes and established a mindset as close

as possible to the victim's. Strictly speaking, forgeries are duplicates of manually-crafted originals, often signatures or *objets d'art*, which are fraudulently claimed to be the originals.

Security Specialty: Bonus for the design and modification of security systems and devices used to overcome them. Locks, traps, alarms, and all devices used to defeat them, both manual and automated, are the tools of this trade. This security specialty, dedicated to protection of physical spaces, is distinct from Computer Security, above, which protects virtual spaces.

Surveillance Specialty: Bonus for the design and modification of devices to be used for surveillance of various types, e.g. electronic bugs, communication taps, photographic observation, etc., as well as those devices which provide protection from these same surveillance devices.

Tracking Specialty: Bonus for the design and modification of devices for purposes of detection and tracking: thermal tracers, motion detectors, audio tracers, and homing beacons, as well as the methods and equipment used to counteract these detection and tracking devices.

Crime Technics, Counterfeiting/Forgery: Bonus for the operation, repair, and simple modification of equipment used to create or detect counterfeits and forgeries.

Crime Technics, Forensics: Bonus for the operation, repair, and simple modification of devices used in forensic investigation, as well as the equipment used to prevent or obscure forensic evidence.

Crime Technics, Scan/Security/Surveillance/Tracking: Bonus for the operation, repair, and simple modification of equipment used for security, surveillance, or tracking. This skill is also used for the operation of a Security Scanner.

CYBERNETIC ENGINEERING (IN/RE) AND TECHNICS (AG/IN)

More than just robotics, cybernetics is the field of merging man and machine, of duplicating and modifying nature's ultimate creation with its own creations. In *Space Master*, cybernetics is nearly as old as access technology, but not nearly as well respected. Although cybernetics has been around for quite a while, its convoluted history is fraught with many dark corners, and thus in Imperial society cyborgs are the heirs of a rather unenviable social stigma. Still, fascination and necessity turn many to seek the wares of the cyberneticist.

General: General knowledge of the principles of robotics, autonomic man-machine interfaces, and androids. This general skill permits a bonus for the design and modification of cybernetic implants, bionic limbs, and robotic/android systems.

Combat Enhancement Specialty: This specialty provides a bonus specifically to the design and development of armament and armor for the cyborg, robot or android: integral weapons, armor implants, HUD implants and enhancements to strength, quickness and constitution are all examples of combat enhancements. Officially, only military academies and government subcontractors possess the ability to teach this specialty, but there's no reason why renegade research can't be performed into many of these generally straightforward techniques.

Cosmetic Enhancement Specialty: Bonus for designing and modifying cosmetic cybernetics. The ultimate goal of this specialty is to make the cyborg or android appear completely human to all the senses... and even to scanners and sensors. Thus simulskin (page T57) is this specialty's major contribution to the field of Cybernetics to date. Some less cyberphobic cultures tolerate or even appreciate obviously unnatural cosmetic enhancements, such as chrome-plating, which also fall under this specialty.

Molecutronics Specialty: Bonus for the design and modification of the molecutronic brain used in android constructs. Molecutronic brains, by virtue of their self-programming ability and self-awareness, are what separate androids from mere robots.

Neuroelectronics Specialty: Bonus for the design and modification of cybernetic implants that interface with the humanoid nervous system. Examples of such devices include direct-interface jacks, chipslots for augmenting ones memory or mental ability, the autonomic neural interfaces of bionic limbs, and enhanced reflex modifications.

Sensory/Vocal System Specialty: Bonus for the design and modification of robotics and cybernetics that mimic or enhance the five senses and the voice. These systems may be applied either to androids or cybernetic/bionic implants.

Skeletal/Motor Systems: Bonus for the design and modification of the skeletons and effectors, or "muscles," of androids, robots and bionic limbs. In the case of bionics, their ability may equal or exceed the ability of natural limbs but are limited by the strength of the supporting tissues.

ELECTRICAL ENGINEERING (In/Re) AND TECHNICS (Re/Me)

The precursor of access technology, electrical engineering is the art of harnessing the electron to serve the purposes of communication, research, entertainment, data processing, and a vast array of gadgetries. In the *Space Master* universe, electronics are as pervasive in everyday life as petroleum products are today. Also, neutrinos and photons have been harnessed to serve the purposes of remote sensing and analysis, therefore their application is included under this discipline. The variety of specialization available to the electrical engineer is exceeded by few other professions. Thus, to keep skill development manageable, this discipline is divided into only the most general specializations.

General: Bonus for the design and modification of basic circuitry using semiconductors and crystalline electronic devices, antennae, optoelectronics, electron/neutrino transducers and superconductors.

Electro/Neutrino Specialty: Bonus for the design and modification of special-purpose electromagnetic and neutrino beam devices, including Klystron tubes, antennae, microfrequency modulation rigs, scanners and SENSRs, EW and ECM generators, and other productive devices (as opposed to destructive ones) that apply electro/neutrino fields and beams.

Laser/Optic/Holographic Specialty: Bonus for the design and modification of productive special-purpose devices employing the photon, including lasers, optoelectronics, video displays and holographic projectors.

Liquid Crystal Specialty: Bonus for the design and modification of devices which employ liquid crystals and polyphase crystals in goggles and lenses, 2D cameras, and flat panel displays, as well as in compasses and other navigational references.

Microelectronics Specialty: Bonus for the design and modification of the integrated electronic devices, hybrid devices, and isolated nanomachines used in conjunction with almost every other electronics technology for control, storage, and integration. This skill also covers the design and modification of individual computer hardware elements (core processors, mass storage, input/output ports, etc.)

Tachyon Particle Communications Specialty: Bonus for the design and modification of transmitting and receiving equipment used in the Tachyon Beam Dictor, TBD. The only schools teaching this specialty are under complete control and supervision by the Dia Khovaria, who jealously maintain their all-but-exclusive monopoly over this technology.

Teleporters Specialty: This cutting-edge specialty grants a bonus for the design and modification of matter transmission systems and their support equipment. Teleporters transmit the complete physical and genetic description of the subject over short, planetary-scale distances. (In all but the most advanced campaigns, teleporters should be but a rumor to most, believed only by avid readers of the Imperial Inquirer.)

Temporal Translation Specialty: This utterly fantastic specialty grants a bonus for the design and modification of temporal/dimensional displacement equipment. These devices warp the fabric of space and time to deliver the subject unto another place or time, or perhaps "elsewhere." (No one but the Imperial Advanced Research Projects Academy even suspects the real possibility of this technology in the average campaign.)

Electrical Technics, General/Microelectronic/Liquid Crystal/Sonic: Bonus for the maintenance, minor modification and repair of devices employing general electronic, microelectronic, and liquid crystal technologies, and the use of the required tools and test equipment. This Technics skill also applies to devices which are the subject of the Sound Engineering specialties. The character must develop at least two ranks in this skill before developing any other Electrical Technics skills. This rule is intended to reflect the complexity of the other Electrical Technics skills compared to this one.

Electrical Technics, Electro/Neutrino/Tachyon Beam Dictors: Bonus for using, repairing, or making minor modifications to TBD equipment and the devices belonging to the Electro/Neutrino Electrical Engineering specialty.

Electrical Technics, Laser/Optic/Holographic:

Bonus for using, repairing, or making minor modifications to laser, optoelectronic, or holographic equipment.

Electrical Technics, Teleporters: Bonus for the operation, maintenance, repair, and minor modification of matter transmission equipment. (Same as *Teleporter Technics*.)

Electrical Technics, Temporal Translation:

Bonus for the operation, maintenance, repair, and minor modification of temporal/dimensional displacement equipment. (Same as *Temporal Translation Technics*.)

ENVIRONMENTAL ENGINEERING (In/Re)

Environmental Engineering is the art of creating artificial ecosystems and modifying or maintaining natural environments. It is the application of biology and biochemistry on scales so large and complex as to warrant classification as a separate field of study.

General: Bonus for the study of the stability of an environment and how to recreate its conditions in a controlled setting. Includes the design and modification of equipment to sustain an artificial ecosystem.

Artificial Ecosystems Specialty: Bonus for the design, implementation and maintenance of a self-perpetuating artificial ecosystem within a closed environment such as a space station, colony ship or domed planetary facility.

Pollution Control Specialty: Bonus for the design, manufacture, and maintenance of equipment which alters or collects the effluents of industrial processes so as to prevent damage to the local or global environment.

Terraforming Specialty: Bonus for the design and implementation of a "recipe" to alter the environment of an otherwise uninhabitable atmosphere-bearing planet so as to make it suitable for humanoid colonization.

Recycling/Reclamation Specialty: Bonus for the design and implementation of industrial processes which recycle or recover industrial and household wastes to produce resources or products of commercial or industrial value.

(There are no Technical Skills devoted to Environmental Engineering. However, many Mechanical, Genetic, and Electrical Technics skills are used when applying Environmental Engineering solutions.)

GENETIC ENGINEERING (In/Re) AND TECHNICS (In/Re)

Genetic Engineering is the manipulation of an individual's DNA to create replicas, mutations, improved versions, or entirely new species. Genetic engineers can also attempt systemic chromosome revisions to fundamentally alter a living creature's bodily processes for the purposes of limb or organ regeneration, longevity, and the treatment (or creation) of diseases.

General: Bonus for the design and implementation of alterations to existing gene patterns and functions. This general skill covers all methods of genetic manipulation and the basics of cloning and alterant replication.

Cloning and Replication Specialty: Bonus for the use of the DNA of an existing organism to create identical organisms (clones), or "improved" organisms (alterant replicants). This specialty concentrates on the methods of creating an embryo from a genetic pattern and the in-vitro development of the embryo to term within creche tanks. This specialty also includes simple manipulation of genetic patterns (genotypes) to accentuate or diminish the qualities exhibited by the organism (phenotypes).

Analytical Eugenics Specialty: Bonus for the analysis of potential parents' genetic patterns and matching them or reinforcing them to promote the breeding of offspring with desired qualities. This specialty is different from conventional breeding programs in that decisions are guided by analysis of the genotype, whereas conventional breeding programs are based on phenotype analyses (the subject of the academic Genetics skill). Breeding may be accomplished by matching parents who possess optimal genotypes, and/or by prescribing drugs to give preference to gametes (sperm and ova) carrying the desired sets of genes. Obviously, this method is not as efficient as alterant replication, but has the advantage of producing offspring not burdened by a replicant's social stigma. All of the Transhuman races were produced via eugenics programs, either analytical or conventional. This specialty must be developed separately for each species of organism.

Gene Manipulation Specialty: Bonus to manipulate a genotype so as to produce the desired phenotype, usually to be expressed in the form of an alterant replicant. Complex modifications and ground-up genetic designs are the forte of this specialty. This specialty must be developed separately for each species of organism.

Tissue Regeneration Specialty: Bonus for the design and development of new methods that stimulate the organism to regenerate new tissues, organs, and limbs in order to replace those lost due to injury or illness. Also, longevity treatments, immune system enhancements, and any other genetic modifications made to an already-developed organism fall under this specialty. This skill must be developed separately for each species of organism.

Genetic Technics: Bonus to operate, maintain, repair or make minor modifications to the equipment used in applying the principles of any of the above specialties.

MECHANICAL ENGINEERING (Ag/Me) AND TECHNICS (Ag/Me)

Older than almost any other engineering profession, mechanical engineering deals with the design and manufacture of pumps, pulleys, hinges, lifts, hatches, gears, frames, chasses, articulated structures, engines, motors, airfoils, and the enclosures for devices of other engineering disciplines.

General: Bonus for the design of basic structures, enclosures, aerodynamic shapes, and systems of moving parts.

Aircraft Specialty: Bonus for the design and modification of the mechanical and aerodynamic aspects of atmospheric craft, including frames, wings, flaps, landing gear, etc., and the integration of these with armaments, engines, electronics, and computers.

Combustion Engines Specialty: Bonus for the design and modification of engines employing mechanical parts forced into motion by the controlled combustion of highly flammable substances: gasoline, diesel, jet turbine and ramjet engines.

Starcraft Specialty: Bonus for the design and modification of starcraft according to the requirements of the ship's purpose, including size, fuel, armor, maneuverability, power consumption, crew complement, passenger accommodations, cargo volume and the integration of armaments, engines, electronics, and computers.

Submersibles Specialty: Bonus for the design and modification of submersible vehicles, their control surfaces, those systems that allow immersion, and the integration of armaments, engines, electronics, and computers.

Surface Craft Specialty: Bonus for the design and modification of the structures and moving parts for surface vehicles such as cars, grav cars, hovercraft, AFVs, trains, and MIRC's, as well as the integration of armaments, engines, electronics, and computers.

Mechanical Technics, Air/Surface Craft: Bonus for the use of tools and equipment to assemble, repair and make minor modifications to aircraft and surface craft. The operation of these craft is granted by the Driving and Atmospheric pilot skills.

Mechanical Technics, General/Combustion Engines: Bonus for the use of tools and equipment to assemble, repair and make minor modifications to other machines and combustion engines.

Mechanical Technics, Starcraft/Submersibles: Bonus for the use of tools and equipment to assemble, repair and make minor modifications to starcraft and submersible craft. Ability to operate these craft is granted by skills in the Driving and Astronautics categories.

MEDICAL ENGINEERING (In/Re) AND TECHNICS (Em/Me)

This engineering discipline is devoted to the design and development of medical tools, prosthetics, and automated medical equipment.

General: Bonus for the design and modification of basic medical equipment and prosthetics.

Autodocs Specialty: Bonus for the design and modification of automated sickbay facilities using large scanner systems that feed information to medical computers for diagnosis. Fully automatic versions use this diagnosis to provide automated treatment for minor and moderate injuries or illnesses or stabilization of the critical patient. The diagnostic results may also be used for recommendations and treatment suggestions for attendant medical personnel.

Bionics Specialty: Bonus for the measurement, gross design, and fitting of any prostheses to amputee patients. In the *Space Master* setting, most prostheses are bionic, restoring full functionality to the patient, including tactile and sensory feedback.

Cryogenics Specialty: Bonus for the design and modification of cryogenic berths, preservation chambers, stasis pods, and other suspended animation devices, including drugs and treatments necessary for subject preparation and decanting.

Diagnostic Scanners Specialty: Bonus for the design and modification of Medscanners, analytic and diagnostic software, and other remote sensing devices used to determine a patient's condition.

Surgical Equipment Specialty: Bonus for the design and modification of tools and equipment — hand-held, semiautomated or fully-automated — that are intended to be used for invasive medical techniques.

Medical Technics: Bonus for the repair, preparation, and minor modification of all medical tools and equipment. This skill also grants a bonus for the use of tools and equipment intended for emergency treatment and minor field operations.

POWER SYSTEMS THEORY (In/Re) AND TECHNOLOGY (Ag/Me)

This discipline deals with the manipulation of the basic forces of the universe, the conversion of one form of energy into another, and the storage and controlled release of these energies. Without the products of this field's endeavors, few products of other engineering disciplines would function.

General: Bonus for the design and modification of basic energy conversion devices, batteries, generators, power cells, solar cells, magnetic systems, gravitic systems, and controlled fission, fusion, and matter/antimatter reactions.

Batteries/Power Cells: Bonus for the design and modification of electrochemical batteries, fuel cells, and power cells according to the demands and safety requirements of their intended use.

Bioelectric Specialty: Bonus for the design and modification of energy systems which derive electricity from the chemistry and functions of the living organisms for use in cybernetic implants and bionic prostheses.

Fission Specialty: Bonus for the design and modification of nuclear power systems that derive heat and/or electricity from the atomic disintegration of heavy radioactive elements.

Fusion Specialty: Bonus for the design and modification of nuclear power systems that derive heat and/or electricity from the atomic fusion of two or more lighter elements to create heavier elements.

Gravitics Specialty: Bonus for the design and modification of gravitic levitation devices, power plants, propulsion units, and artificial gravity fields.

Hydroelectric/Geothermal Specialty: Bonus for the design and modification of electrical generators that use the flow of water or steam as their source of power. These generators do not necessarily have to be of civic scale.

Magnetic Specialty: Bonus for the design and modification of power systems which use magnetic fields to develop or convert energy, including, but not limited to, electrostatic and magnetronic motors and generators.

Solar Specialty: Bonus for the design and modification of systems which convert solar radiation to sources of useful power.

Power Systems Technology, Batteries/Cells/Solar/Magnetic: Bonus for construction, operation, maintenance, minor modification, and repair of power systems in the Batteries/Power Cells, Solar, and Magnetic categories.

Power Systems Technology, Bioelectric: Bonus for repair and minor modification of bioelectric power systems.

Power Systems Technology, Nuclear/Matter-Antimatter: Bonus for the construction, operation, maintenance, minor modification, and repair of Fusion, Fission, and Matter/Antimatter power systems.

Power Systems Technology, Hydroelectric/Geothermal/Civic: Bonus for the construction, operation, maintenance, minor modification, and repair of hydroelectric geothermal systems, and any other civic-scale power installations.

SANITATION ENGINEERING (In/Re)

Not the most glamorous of professions, sanitation engineers deal with the recycling of human and animal wastes — solid, liquid, and gaseous — into reusable form. This process forms the core of long-term and indefinite-term life support systems for vacsuits, aircraft, submersibles, starships, orbital stations, interstellar outposts, and habitation enclosures. Truly, without this technology, humans would have been too mired in their own muck to reach the stars, or would have suffocated trying.

General: Bonus for basic designs and modification of air and liquid/solid waste recycling systems.

Environmental Suit Specialty: Bonus for the design and modification of self-contained environmental suits which quickly recycle waste gases, liquids, and solids to maintain viable atmosphere and potable water for the wearer. Some storage of water and oxygen is necessary, but a great deal of the consumed oxygen and water can be recovered from all the wearer's wastes.

Municipal Specialty: Bonus for the design and modification of civic-scale waste recovery and recycling systems for large and very large scale enclosed installations such as dreadnoughts, space stations and habitable modules such as domed cities and colonies.

Surface Craft/Submersible Specialty: Bonus for the design and modification of water and air recycling systems for small and medium-sized craft which have continuous access to external resources, such as explorers, MIRC's, and submarines.

Starcraft/Aircraft Specialty: Bonus for the design and modification of water and air recycling systems for small and medium-sized craft which have only intermittent access to external resources, such as starships and aircraft.

(There are no Technics skills for Environmental Engineering. The equipment may be operated and repaired by use of Mechanical Technics skills.)

SOUND ENGINEERING (IN/RE)

A synthesis of both electrical engineering and mechanical engineering, Sound Engineering is the design and development of systems which utilize pressure waves in compressible media for entertainment, analytical, psychological, and environmental purposes. Sound engineers are consulted in the design of concert halls, cathedrals, and noise-prone work areas, such as factories and casinos.

General: Bonus for designing and modifying basic sonic, subsonic, ultrasonic, and acoustic systems.

Acoustics Specialty: Bonus for the design and modification of areas and enclosures which exhibit the desired response to acoustic energy by passive reflection and absorption of sounds.

Amplification Systems Specialty: Bonus for the design and modification of systems which electronically or mechanically amplify faint sound sources to enable normal hearing or amplification of normal sound sources to unusual volumes or concentrations.

Subsonic/Ultrasonic Specialty: Bonus for the design and modification of systems which apply sound energies outside the frequencies of normal humanoid hearing.

(There are no Sound Technics skills, but the skill Electrical Technics, General/Micro/Liquid Crystal/Sonic should be developed for the repair and operation of electronic sound devices. Those PCs wishing to repair or operate mechanical sound devices should choose the Mechanical Technics skills.)

STRUCTURAL ENGINEERING (IN/RE) AND CONSTRUCTION (AG/ME)

The *Space Master* version of civil engineering and architecture, Structural Engineering is the design and modification of large, load-bearing constructs or surfaces as well as the layout of municipal utilities and service conduits. Structural engineers don't do anything on a small scale...

Note: *The Space Master Companion I Master Development Point Cost Table (12.1) has entries for Architecture, Civil Engineering, Urban Design and Structural Engineering, although the book omits any description of the last. These options consider Urban Design, Civil Engineering and Architecture to be a specialty of Structural Engineering and the text below indicates which development point cost entries are to be used for each specialty skill.*

General: Bonus for the design of basic rigid and flexible structures which must stand up to large loads and other external forces. (Use development point costs for Civil Engineering.)

Bridges/Roads Specialty: Bonus for the design and modification of roads, bridges, highways, tunnels, and other vehicle paths. (Use development point costs for Civil Engineering.)

Commercial/Industrial: Bonus for the design and modification of safe and efficient office buildings, factories, hotels, sea-ports, airports, spaceports, shopping centers, warehouses, etc. (Use development point costs for Architecture.)

Hull/Chassis Design Specialty: Bonus for the design and modification of the load-bearing structures and hulls of spacecraft, aircraft, and other vehicles. (Use development point costs for Structural Engineering.)

Urban Design Specialty: Bonus for the design and modification of civic infrastructures, including but not limited to sewer lines, subway lines, power distribution networks, etc., as well as establishment and revision of zoning ordinances. See also the Urban Design skill description in *Space Master Companion I*. (Use development point costs for Urban Design.)

Residential Specialty: Bonus for the design and modification of safe, comfortable homes, condominiums and apartments. (Use development point costs for Architecture.)

Construction, Civil/Residential/Street/Tunnel: Bonus for the erection and repair of roads, bridges, homes, tunnels, and smaller commercial/industrial structures (Use development point costs for Fabrication.)

Construction, Highrise: Bonus for the erection and repair of towers, spires, and other buildings with more than twelve floors. (Use development point costs for Fabrication.)

Construction, Orbital/Starcraft: Bonus for the construction and repair of the structures of spacefaring vessels and habitats in zero gravity, typically in a vacuum environment and while in orbit about a planetary body. (Use development point costs for Fabrication.)

UNDERSEA ENGINEERING (IN/RE) AND UNDERSEA CONSTRUCTION (AG/ME)

The designers of deep-sea dwellings, undersea engineers are responsible for aiding the exploration, and exploitation, of the deep oceans. Whereas spacecraft and orbital stations must withstand the forces of containing one atmosphere of pressure within their vessels, the craft and habitats of the deep oceans must withstand truly hundreds of atmospheres of water pressure which relentlessly seeks its way within the tiny air pockets created by men where none should otherwise exist.

General: Bonus for the design and modification of structures to withstand conditions of the deep ocean: extreme pressure, extreme cold, salinity, and darkness.

Aquaculture Specialty: Bonus for the design and modification of deep sea and seafloor farming operations.

Deep Habitats Specialty: Bonus for the design and modification of deep sea habitats in which humanoids must live and work under either equalized pressure (no mod) or differential pressure (-70 mod).

Pressure Suit Design Specialty: Bonus for the design and modification of environmental suits which allow humanoids to operate in the deep ocean without the protection of a vessel or habitat.

Seascaping Specialty: Bonus for the design and modification of large-scale alterations to the terrain of the seafloor.

Construction, Undersea: Bonus for the construction and repair of structures while submerged, and for performing alterations to the terrain of the seafloor. (*Use development point costs for Crafting.*)

WEAPONS DESIGN (IN/RE) AND WEAPONS TECHNICS (AG/ME)

Most likely humanity's second oldest profession, warfare has motivated more technological advances than any other human endeavor, even agriculture. The design of new, more efficient, and more destructive weapons has been a never ending pursuit, in spite of it's all-too-frequent loathsome consequences. But no society has ever persisted for long in the presence of others without developing an advantage in weaponry, even if intended only for deterrence of more aggressive neighbors.

General: Bonus for the design and modification of basic weapons systems, both conventional and energy-based.

Energy (Hand) Specialty: Bonus for the design and modification of one- and two-handed energy weapons — stunners, flamers, lasers, blasters, disruptors, and plasma repeaters.

Energy Blades Specialty: Bonus for the design and modification of force knives, power swords, and any other weapons operating on their principle.

Explosive Specialty: Bonus for the design and modification of grenades, RPGs, explosive conventional rounds, and other munitions based upon violent chemical reactions.

Matter/Antimatter Specialty: Bonus for the design and modification of bombs and missile shells which rely on the mutual annihilation of matter and antimatter for their destructive power.

Missile Artillery Specialty: Bonus for the design and modification of projectile and self-propelled artillery systems to be mounted on mobile chasses, warships, and fixed installations.

MLA Specialty: Bonus for the design and modification of one- and two-handed magnetic linear accelerator weapons.

Mounted Energy Specialty: Bonus for the design and modification of energy projectors that are not hand-held — stunners, flamers, lasers, blasters, disruptors, and plasma repeaters. This category includes the "support" class of personal weapons in addition to the mounted weapons of Mk. 6 and above found on mobile chasses, warships, and fixed installations.

Mounted Projectile Specialty: Bonus for the design of projectile weapon systems that are not hand-held, including the "support" class of personal projectile weapons in addition to autocannons and MLA cannons of Mk. 6 and above found on mobile chasses, warships, and fixed installations.

Nuclear Warhead Specialty: Bonus for the design and modification of bombs, missiles, and torpedoes that rely on the processes of fusion or fission for their destructive power.

Projectile (Hand) Specialty: Bonus for the design and modification of one- and two-handed projectile weapons — pistols, rifles, machine guns, shotguns, needlers, tanglers, taserguns, rocketguns, grenade launchers, and RPG launchers, and their nonexplosive ammunition.

Shields/Tractors Specialty: Bonus for the design and modification of velocity, deflector, absorption, and barrier shields as well as of tractor beam systems.

Sonic Specialty: Bonus for the design and modification of weapons which use concentrated high-intensity sound for their disabling and/or destructive effects.

TIER Specialty: Bonus for the design and modification of Thought Interfaced Electronic Resonance weapons.

Weapon Technics, Energy: Bonus for the maintenance, repair, and minor modification of all forms of energy projectors.

Weapon Technics, Explosives/Missile Artillery: Bonus for the maintenance, repair, and minor modification of conventional bombs, grenades, torpedoes, artillery launchers and projectile shells.

Weapon Technics, MLA/Projectile: Bonus for the maintenance, repair, and minor modification of all forms of projectile weaponry and MLA launchers.

Weapon Technics, Nuke/Matter-Antimatter: Bonus for the maintenance, repair, and minor modification of all fission, fusion, and matter-antimatter ordinance.

Weapon Technics, Shields/Tractors: Bonus for the maintenance, repair, and minor modification of all forms of shields and tractor beam projectors.

Weapon Technics, Sonic: Bonus for the maintenance, repair, and minor modification of sound energy projectors.

Weapon Technics, TIER: Bonus for the maintenance, repair, and minor modification of Thought Interfaced Electronic Resonance weapon systems.

MEDICAL SCIENCES

The most noble of professions, the scientific practice of medicine predates recorded history in the *Space Master* setting. And with the passing of millennia of recorded history, medical practitioners have become more specialized, not less, as knowledge of the human body and mind has grown. Thus, it is no surprise that there are more areas of specialty in this profession than in any other. Below, twenty-eight fields of specialty are listed, not including genetics, cybernetics, and xenomedicine.

General: Bonus for the basic understanding of anatomy, permanent treatment of muscle and bone injuries, preventive health care, and the diagnosis of common diseases.

Anesthesiology Specialty: Bonus for the application of pharmaceuticals to induce a partial or complete reduction of pain. Some drugs may require specific conditions to be met for them to be used safely.

Audiology Specialty: Bonus for studies of the inner ear and its afflictions. This skill is used for curing deafness and inner ear diseases or injuries. This skill also includes research and treatment involving the vestibular system (sense of balance and motion based in the inner ear).

Bacteriology Specialty: Bonus for the study and identification of individual bacterial strains. This specialty also includes the recognition of different parts of the cells and well as what they are responsible for, as well as how to alter their function. Also, this skill allows bacterial colony growth, storage, and control.

Burns/Tissue Regeneration Specialty: Bonus for the treatment and regeneration of burned or atrophied tissues. This skill does not include treatment of amputated tissues, which falls under a specialty of genetic engineering.

Community Medicine Specialty: Bonus for determining the medical needs of a community given the conditions in which it lives. This skill would be very important for preparing a colony for settling.

Dentistry Specialty: Bonus for study of the mouth and teeth and how to correct their problems.

Dermatology Specialty: Bonus for the study of the skin, its ailments, and their treatments. These ailments may be anything from pigmentation oddities, acne, or warts, to skin cancer and other severe afflictions.

Embryology: Bonus for the study of embryological development of creatures. This includes the identification of separate tissues and how they are used in development. This skill need be developed separately only for each evolutionary phylum, since all vertebrates of terrestrial origin are amazingly similar in the sequence and organization of their embryological development, so much so that an embryo of a human is indistinguishable from that of a chicken for at least the first six weeks of development.

Eye/Ear/Nose/Throat Specialty: Bonus for the treatment of upper respiratory ailments and diseases of the eyes, ears, and sinuses.

Immunology Specialty: Bonus for the study of the immune system and its operation. This skill includes the ability to stimulate the immune system for a stronger reaction, or to weaken the reaction. The skill also would be used to develop immunizing agents and might be necessary to prove a specific affliction by way of antibody reaction. Many diseases are not identified by their symptoms, but by a test for antibody reactions to the antigen (foreign body).

Internal Medicine: Bonus for the study and treatment of nonsurgical constitutional diseases. This would include the identification and practice of therapeutic methods for the diseases of internal organs without the use of surgery (e.g., some gastrointestinal problems, muscular therapy, etc.) Note that this skill is listed separately from Medical Practice in the *Space Master Companion I* Master Development Point Cost Table.

Molecular Biology Specialty: Bonus for the study of the DNA molecule's structure and alterations in it, as well as the structure and function of amino acids and proteins. This skill includes the study of induced mutation, chromosomal mapping, base sequencing, etc., with the goal of curing congenital diseases and eliminating birth defects.

OB/Gyn/Family Planning Specialty: Bonus for the care of females and the female reproductive organs before conception, during pregnancy, childbirth, and the recuperative period following delivery. This specialty also aids females in their choice and use of prophylactics, birth control, fertility and planned conception.

Oncology Specialty: Bonus for the study of cancerous tissues and methods of controlling and healing them, if possible. This skill does not include the surgical removal of tumors, which falls under the Surgery specialty, but instead should be used for the identification of different forms of tumors and pharmaceutical treatments.

Parasitology Specialty: Bonus for the study of parasitic organisms (excluding bacteria and viruses) and their relationships with their hosts.

Pathology Specialty: Bonus for the study of diseases, their modes of infection, stages of progress, levels of virulence, contagion factors, and modes of transmission.

Pediatrics Specialty: Bonus for the treatment of ailments in preemies, infants, and children through puberty.

Pharmacology Specialty: Bonus for the study of drugs and their effects on the patient and their diseases. This skill includes the creation of new drugs and the modification of old drugs to improve effectiveness, reduce or eliminate side-effects, or to manufacture them more efficiently.

Psionic Study Specialty: Bonus for the study of the function of the brain during psionic activity, and how to manipulate these functions. This skill could also be used to enhance or weaken psionic ability through research.

Radiology Specialty: Bonus for the study of radiation and its effects on organisms, as well as possible diagnostic and therapeutic uses.

Space Medicine Specialty: Bonus for the study of illnesses which result from long periods of space travel, such as zero-gravity weakness and bone fragility, possible mineral precipitation due to faulty long-term cryogenic stasis, etc.

Sports Medicine/PT Specialty: Bonus for the study and healing of sports-related injuries and illnesses and the rehabilitation of injured patients.

Toxicology Specialty: Bonus for the study of different types of toxins and their effects on the patient. This skill includes the analysis of toxins to develop an antidote, but not the restructuring of a substance at the molecular level.

Trauma/Battlefield Specialty: Bonus for the treatment of mortally-injured patients in an emergency room or battlefield medic station so as to stabilize their condition and prepare them for surgery or other curative treatments.

Veterinary Specialties: Bonus for the study and treatment of diseases and injuries for animals of terrestrial or Imperial origin. This skill must be developed in one or more of three sub-specialties:

- **General:** Treatment of domestic pets and urban working animals.
- **Farm:** Treatment of livestock and rural working animals.
- **Exotic:** Treatment of zoo animals and wild animals.

(Note that this specialty overlaps with the skill Animal Healing. If this specialty is used in your campaign, treat Animal Healing analogously to First Aid.)

Virology Specialty: Bonus for the study of viruses and their effects on living organisms. This skill also includes the study of bacteriophages which infect and destroy bacterial organisms.

Xenofarm Specialties: Bonus for the practice of medicine on any one alien species. This includes only a very general knowledge of listed categories. To reflect this general nature, this skill is more difficult to use than the individual categories. An additional -40 must be applied to any attempt to use Medical Sciences under the Xeno heading, on top of any other modifiers that the GM applies.

7.0 CYBERNETICS

Cybernetics is the joining of the human body with artificial parts to adapt to or overcome environment. The artificial parts may be metal, mechanical, organic, and/or natural. In any case, the area of the body is improved for survival.

Depending on the technology available, different types of cybernetics may be found. The following five "Mark" numbers describe the various technology levels of cybernetics. Note that not all cybernetic components have Mark 5 representations. Also, cybernetic limbs and sensory organs DO NOT follow this format (they should be considered exceptions).

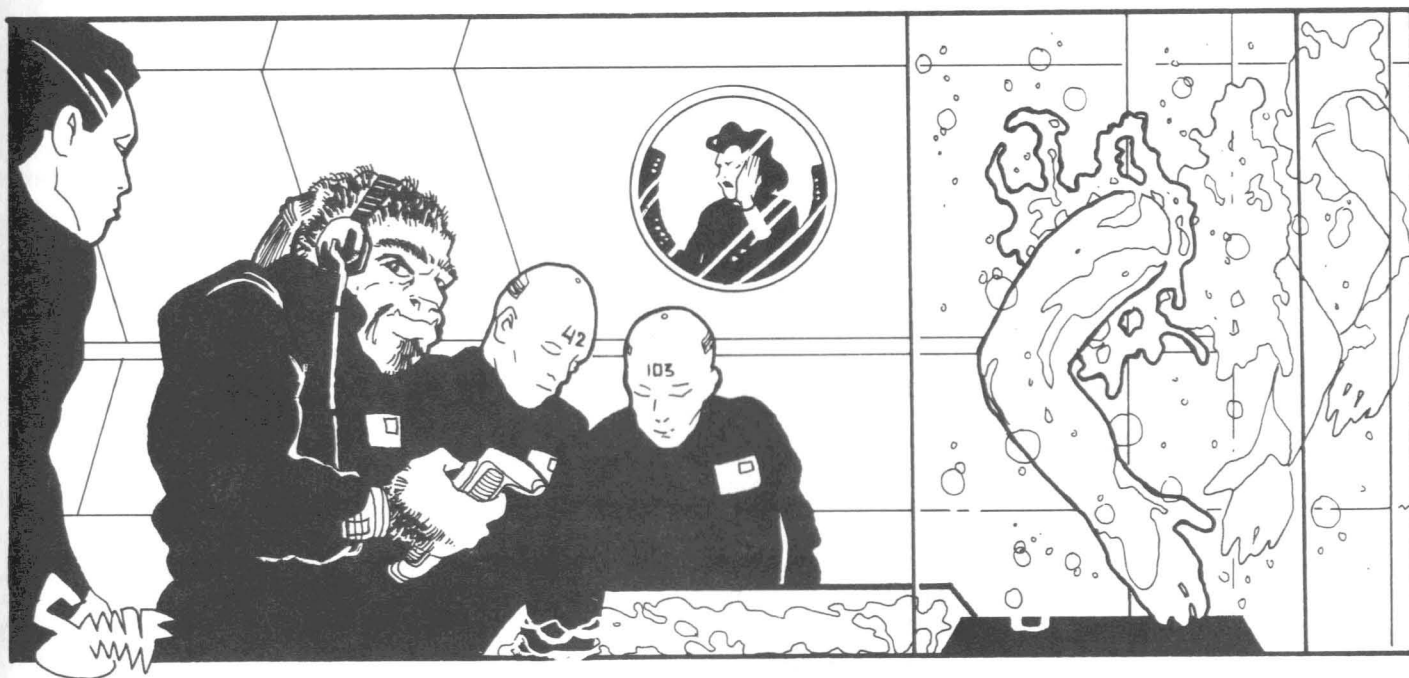
Mark 1: These cyber-units are metal alloys with some synthetic components. In general they are large and bulky. In some ways they are less effective than the original body part; in others, they are superior. In cultures where technology is not very advanced, (e.g., 20th century Earth), this the most common cybernetics available.

Mark 2: These units are comprised of synthetic fibers, plastics, and ceramics. Metal alloys are rarely used. The components are smaller and more compact than the Mark 1 systems. The versatility of the Mark 2 system is slightly broader than the Mark 1. Cultures with fission and fusion technology and limited space travel (e.g., early 21st century Earth) would have Mark 2 cybernetics.

Mark 3: These units are entirely composed of synthetic composites. These materials simulate the human part/system replaced. They are superior to the human standard, with a wide range of versatility. The Mark 3 is the most advanced synthetic cybernetic system. Cultures with fusion energy and limited anti-matter usage (e.g., late 21st and early 22nd centuries Earth) would have Mark 3 cybernetics.

Mark 4: These cyber-units are organic; comprised of the same material as the human body. Genetic engineering allows the manipulation of DNA and RNA strands to produce increased ability in all areas of the body. This level of cybernetics is superior to the human standard in every way. A genetically altered cyber-component is also superior to a metal or synthetic equivalent. Cultures where FTL travel and interstellar communication are common (30th to 85th century Earth) would have Mark 4 cybernetics.

Mark 5: Similar in most respects to the Mark 4 systems, the Mark 5 adds molecutronics to the organic cyber-components. The main advantage to the mixing of these two technologies is the greater range of versatility that the molecutronics offers. Cultures with intergalactic travel and time travel (e.g., 90th century Earth and beyond) would have Mark 5 cybernetics.



OPTIONS AND ENHANCEMENTS

The base cyber-component simply mimics the ability of the human body part it replaces. In most cases, the replacement unit has the ability to place other systems into it. This additional systems are called options and enhancements. Generally, the more technologically advanced and larger the cyber-component is, the more options and enhancements it can hold. There is a distinct difference between an option and an enhancement.

Option: This is an add-on that attaches onto or into a cyber-system. It exists by itself, whether it is connected to the component or not. Options are indicated by an "O" in the options and enhancements list (following the cybernetic components list).

Example: Any weapon, system, or device that could operate without the cybernetic component. Also any detachable items are considered options.

Enhancement: This is an add-on that is an integral part of a cybernetic system. It cannot operate by itself. Enhancements are indicated by an "E" in the options and enhancements list (following the cybernetic components list).

Example: Gas pores, anti-acid glands, motion sensor nerve endings.

USER

The term "user" defines a person who uses cybernetics. In any case where a person has or uses a cybernetic device, he is called a user for the purposes of this cybernetics section.

7.1 INSTALLING CYBERNETIC PARTS AND SYSTEMS

If proper facilities and personnel are available, installation of cyber systems can be relatively easy. To replace a limb (or even a part of a limb), the normal installation time is 2 months. To replace organs (external and internal), the normal installation time is 6 months. To do a full body system replacement, the normal installation time is 1 year. A minimum of half the listed time is needed to perform the operation(s) necessary to install the hardware. The rest of the time is spent training the new system to interface with the old systems.

FAMILIARIZATION PERIOD

The "Familiarization Period" is the time where the cybernetic unit's built in computers begin interaction with the user's natural systems. The computers assimilate the mental signals of the user and translate them into electronic messages. As the user thinks and acts, the computers interpret these actions, deciding what is actually being ordered. When the user is fully satisfied with computer's understanding of his mental patterns, he deactivates the Familiarization Period of the component. During this training period, it is best for the user to practice many different activities so the computer understands these as actual commands and not idle mental chatter.

It is assumed that users will undergo the Familiarization Period during the normal installation process (this is one reason it takes so long to install cybernetic equipment). If less time is spent installing the hardware, it is presumed that the user did not spend an adequate amount of time in the Familiarization Period. To represent the shorter training time for the cyber system, the GM should assign a percentage chance that a given use of the system will fail (due to an unrecognizable command).

Modifiers After Installation

The following are modifiers for the use of various cybernetics parts and replacements. The modifiers are applied immediately upon completion of the Familiarization Period.

Action Modification: This is modifier applied to all actions that are not directly related to the specific purpose of the system. Double this penalty if the action is contrary to the original purpose of the system.

Constitution Modifier: This modification is applied to the users Constitution bonus.

Damage Failure: This is the percentage chance that the system will fail when it receives a serious hit. Anytime a body area that contains a cyber system is struck, the user must roll above this percentage or the system will fail to operate normally in the next round.

Failure Percentage: This is the percentage chance that a system will fail (cease to function entirely) when the system operates abnormally. Each time the system receives damage failure and each time the system is shut down entirely, the user must roll above this percentage to be able to restart the system.

Damage Penalty Modifier: This is the modification to all activities by the host when the system fails to operate normally. Double this penalty if system ceases to function.

Example: Thaldonn takes a blow to his sternum which results in 12 hits and -05 to all actions. Thaldonn also has a Mark 2 cybernetic circulatory system which allows him to breath in almost any atmosphere. Because of the attack, he must make a Damage Failure roll for his cyber-system, to see if it is harmed (a 20% chance). If the system fails the roll, the additional -20 is added to all actions.

In the above example, Thaldonn's system is still operational, but it has sustained some damage. The type and amount of damage is determined on the Cybernetics Malfunction Table.

Cybernetic Parts/Systems Mark 1: Constructed mostly of metal with some plastics components. An external power supply is necessary to operate the cyber-part/system. This is usually a power cell.

Modification	System	Part
Action Modification	-25	-10
Constitution Mod.	-20	-10
Damage Failure	25%	15%
Failure Percentage	15%	10%
Damage Penalty Mod.	-30	-10

Cybernetic Parts/Systems Mark 2: Plastics and other synthetic materials replace most of the bulky metals. The power supply is internal, lasting for the lifetime of the host. The Mark 2 systems equal and slightly exceed the ability of the natural body parts/systems they replace.

Modification	System	Part
Action Modification	-10	-0
Constitution Mod.	-10	-0
Damage Failure	20%	10%
Failure Percentage	12%	08%
Damage Penalty Mod.	-20	-05

Cybernetic Parts/Systems Mark 3: These are constructed from both synthetic material and organic tissue. The unit has the ability to power itself (i.e., no power supply is needed). The Mark 3 systems are superior to the natural human parts/system's performance in almost all respects.

Modification	System	Part
Action Modification	+05	+05
Constitution Mod.	-0	+05
Damage Failure	15%	05%
Failure Percentage	10%	06%
Damage Penalty Mod.	-15	-0



Cybernetic Parts/Systems Mark 4: Composed only of organic tissue. These parts and systems are grown in laboratories where they may undergo whatever DNA manipulation is ordered. The unit is powered from the host's body. These cyber-parts/systems are far superior than their natural counterparts in almost all facets.

Modification	System	Part
Action Modification	+20	+25
Constitution Mod.	+10	+15
Damage Failure	10%	04%
Failure Percentage	07%	04%
Damage Penalty Mod.	-10	-0

Cybernetic Parts/Systems Mark 5: Similar to Mark 4 parts/systems, but molecutronics have been added to boost their ability to even further extremes.

Modification	System	Part
Action Modification	+30	+40
Constitution Mod.	+20	+25
Damage Failure	05%	02%
Failure Percentage	05%	02%
Damage Penalty Mod.	-05	-0

7.2 CYBERNETIC LIMBS

These enhancements do not follow the standard Mark 1 to 5 cybernetic format. They are broken into mechanical and organic categories. Replacement limbs include arms, legs, hands and feet. Other replacements are covered in other, more appropriate, sections. The exact description of these limbs is dependant on who makes them and the level of technology available.

See the options and enhancements list for an explanation of Strength increases.

MECHANICAL LIMBS

Mechanical Mark 1: These limbs are completely constructed from metals and alloys (treat as AT 20). Motion is performed with the aid of hydraulic units mounted on the exterior of the limb. The cyber-limb is controlled by muscle movements from the nearest natural muscles of the user's body. The user flexes one of his muscles and sensors on the limb detect the motion. These sensors activate the hydraulic actuators. The degree of motion of the body delivers a certain degree of cyber-limb motion.

Action Modification:	..... -25
Initiative Modification:	..... -15
Maximum Strength Increase:	..... +80
Constitution Modification:	..... -15
Agility Modification:	..... -20
Quickness Modification:	..... -25
Mass Increase:	Arm +10% per arm Leg +25% per leg
Cost:	Arm 3,000 per arm Leg 3,500 per leg
Damage Failure:	..... 30%
Failure Percentage:	..... 10%

Mechanical Mark 2: Superior alloys and some plastic composites replace weaker metals and alloys used in the Mark #1 limbs. Micro-computers are built within the limb. They both control motion and the sensors that process the commands of the host. With the refinement of these sensors, the host needs to use less obvious and awkward motions to operate his cyber-limbs. Hydraulics have been replaced with servos. Servos are mounted both on the inside and outside of the component.

Action Modification:	..... -15
Initiative Modification:	..... -10
Maximum Strength Increase:	..... +80
Constitution Modification:	..... -10
Agility Modification:	..... -10
Quickness Modification:	..... -15
Mass Increase:	Arm +5% per arm Leg +15% per leg
Cost:	Arm 5,500 per arm Leg 8,500 per leg
Damage Failure:	..... 20%
Failure Percentage:	..... 8%

Mechanical Mark 3: Advanced plastics and ceramics as well as alloys make up these limbs. Micro computers allow contact with the nervous system giving partial mental control of the cyber-limb. All servos are found within the limb, leaving no machinery exposed.

Action Modification:	..... -5
Initiative Modification:	..... +0
Maximum Strength Increase:	..... +70
Constitution Modification:	..... -5
Agility Modification:	..... -5
Quickness Modification:	..... -10
Mass Increase:	Arm +4% per arm Leg +13% per leg
Cost:	Arm 8,000 per arm Leg 10,500 per leg
Damage Failure:	..... 15%
Failure Percentage:	..... 6%

Mechanical Mark 4: Synthetic fibers and other flexible plastics and ceramics nearly phase out metals of earlier models. The internal skeleton of the limb is constructed from rigid materials while the external layers are now malleable, and nearly flesh-like. These give increased motion and ability to act without compromising strength. Servos and other actuators are decreased in size.

Action Modification:	..... +5
Initiative Modification:	..... +5
Maximum Strength Increase:	..... +70
Constitution Modification:	..... -0
Agility Modification:	..... +5
Quickness Modification:	..... -0
Mass Increase:	Arm +2% per arm
	Leg +5% per leg
Cost:	Arm 12,000 per arm
	Leg 17,000 per leg
Damage Failure:	..... 10%
Failure Percentage:	..... 4%

ORGANIC LIMBS

Organic Mark 3: This is a normal limb, grown in a laboratory and surgically attached to the host's body.

Action Modification:	..... -5
Initiative Modification:	..... -5
Maximum Strength Increase:	..... +10
Constitution Modification:	..... -5
Agility Modification:	..... -15
Quickness Modification:	..... -10
Mass Increase:	Arm +0% per arm
	Leg +0% per leg
Cost:	Arm 4,500 per arm
	Leg 6,500 per leg
Damage Failure:	..... 15%
Failure Percentage:	..... 6%

Organic Mark 4: Genetic engineering has allowed enhancements to be programmed into the DNA of organically grown limbs.

Action Modification:	..... -0
Initiative Modification:	..... -0
Maximum Strength Increase:	..... +20
Constitution Modification:	..... -5
Agility Modification:	..... -5
Quickness Modification:	..... -0
Mass Increase:	Arm +2% per arm
	Leg +4% per leg
Cost:	Arm 10,500 per arm
	Leg 15,000 per leg
Damage Failure:	..... 10%
Failure Percentage:	..... 4%

Organic Mark 5: Molecutronics and Genetic Engineering are combined to introduce the most advanced organic cyber-limbs. The lab-grown limbs with modified DNA are improved even further with electronics and micro-computers.

Action Modification:	..... +10
Initiative Modification:	..... +15
Maximum Strength Increase:	..... +40
Constitution Modification:	..... +15
Agility Modification:	..... +10
Quickness Modification:	..... +10
Mass Increase:	Arm +0% per arm
	Leg +0% per leg
Cost:	Arm 22,000 per arm
	Leg 25,000 per leg
Damage Failure:	..... 8%
Failure Percentage:	..... 4%

7.3 CYBERNETIC SENSES

MECHANICAL SENSORY ORGANS

These include the following sensory organs: Eyes, Ears, Nose, and Tactile (feelers).

Tactile (feelers) are not actual antennae, but a thin layer of skin that can feel. This layer of skin covers an area of the body such as a hand or foot. In mechanical versions, this might be a sleeve or glove worn over the body.

Range: The scope of sensory ability of the organ. For example eyes can see light rays beyond visible light, including ultra-violet.

0.5x Range indicates limited sense (color blind, tone deaf, muffled smell, numb feeling).

1x Normal sensory range.

2x Range indicates extra sense (infra-red/ultraviolet vision, ultra sonic audio sense, able to differentiate similar odors, can feel minute bumps and grains of materials).

3x Range indicates superior sense (radio waves, X-rays, residual sound is heard (e.g., sound that has passed by moments ago that has bounced off nearby objects is able to be heard). The ability to separate out nearly identical smells and smell odorless liquids. Tactile sense allows feeling of sound waves and radio waves and minor disturbances (movement) in large objects).

Mechanical Sensory Organs Mark 2: Large awkward metal and plastic machines that mimic the sensory abilities of the organ they replace. Often wires and other parts are exposed on the host's body. An energy cell is needed to power the cybernetic component. This cell is loaded outside the body in a protective casing with wires leading to the cyber-organ. Unfortunately the effectiveness of this level of cybernetics is limited.

Sensory Modification:	..... -30
Constitution Modification:	..... -10
Range Modification:	..... 0.5x
Distance Modification:	..... -25
Mass Increase:	Eye +1% per eye
	Ear +1% per ear
	Nose +2% per nose
	Tactile +2% per tact.
Cost:	Eye 1,000 per eye
	Ear 1,000 per ear
	Nose ... 1,000 per nose
	Tactile .. 1,500 per tact.
Damage Failure:	..... 20%
Failure Percentage:	..... 12%

Mechanical Sensory Organs Mark 3: Small and light plastics replace most of the metal parts of the cyber-organ. The power cell needed is small enough to be mounted within the component itself. Advancements in engineering have allowed superior sensory ability in these units. These cyber-organs now can surpass the average human natural sensory organs.

Sensory Modification:	..... +5
Constitution Modification:	..... -5
Range Modification:	..... 1x
Distance Modification:	..... +10
Mass Increase:	Eye +0% per eye
	Ear +0% per ear
	Nose +1% per nose
	Tactile +0% per tact.
Cost:	Eye 2,500 per eye
	Ear 2,500 per ear
	Nose ... 2,750 per nose
	Tactile .. 3,500 per tact.
Damage Failure:	..... 15%
Failure Percentage:	..... 10%

Mechanical Sensory Organs Mark 4: These units are composed of synthetic tissue that mimics natural human tissues. No power units are needed, as the cyber-organ is powered by the host's body. Wires and moving parts are replaced by single unit organs that look like and act like their human counterparts, only better. The range and ability of these components far surpasses that of normal humans.

Sensory Modification:	..... +15
Constitution Modification:	..... +0
Range Modification:	..... 2x
Distance Modification:	..... +50
Mass Increase:	Eye +0% per eye
	Ear +0% per ear
	Nose +0% per nose
	Tactile +0% per tact.
Cost:	Eye 6,000 per eye
	Ear 5,500 per ear
	Nose ... 6,500 per nose
	Tactile .. 8,000 per tact.
Damage Failure:	..... 10%
Failure Percentage:	..... 7%

Mechanical Sensory Organs Mark 5: Similar to Mark 4 Mechanical Sensory Organs with one major exception. Mark 5 cyber-organs have Molecutronic circuitry.

Sensory Modification: +30
 Constitution Modification: +5
 Range Modification: 3x
 Distance Modification: +100
 Mass Increase: Eye +0% per eye
 Ear +0% per ear
 Nose +0% per nose
 Tactile +0% per tact.
 Cost: Eye 12,000 per eye
 Ear 11,000 per ear
 Nose . 13,500 per nose
 Tactile 16,000 per tact.
 Damage Failure: 6%
 Failure Percentage: 4%

ORGANIC SENSORY ORGANS

Organic Sensory Organ Mark 2: A normal humanoid eye, nose, ear or tactile skin segment grown in a laboratory. These are either created as lone organs or grown as part of an Alterant and then removed when needed.

Sensory Modification: +0
 Constitution Modification: -5
 Range Modification: 1x
 Distance Modification: +0
 Mass Increase: Eye +0% per eye
 Ear +0% per ear
 Nose +0% per nose
 Tactile +0% per tact.
 Cost: Eye 500 per eye
 Ear 1,000 per ear
 Nose 500 per nose
 Tactile .. 1,500 per tact.
 Damage Failure: 8%
 Failure Percentage: 6%

Organic Sensory Organ Mark 3: An organically grown cyber-organ with minor alteration to afford greater ability.

Sensory Modification: +10
 Constitution Modification: -5
 Range Modification: 1x
 Distance Modification: +20
 Mass Increase: Eye +0% per eye
 Ear +0% per ear
 Nose +0% per nose
 Tactile +0% per tact.
 Cost: Eye 1,000 per eye
 Ear 1,500 per ear
 Nose ... 1,000 per nose
 Tactile 2,500 per tact.]
 Damage Failure: 6%
 Failure Percentage: 5%

Organic Sensory Organ Mark 4: Genetic engineering has allowed vastly improved abilities with cyber-organs. These units are grown in labs (as above).

Sensory Modification: +30
 Constitution Modification: +15
 Range Modification: 2x
 Distance Modification: +100
 Mass Increase: Eye +0% per eye
 Ear +0% per ear
 Nose +0% per nose
 Tactile +0% per tact.
 Cost: Eye 7,000 per eye
 Ear 10,000 per ear
 Nose ... 7,000 per nose
 Tactile 12,000 per tact.
 Damage Failure: 5%
 Failure Percentage: 4%

Organic Sensory Organ Mark 5: As Mark 4 above, but has Molecutronic circuitry added to the unit to further enhance its performance.

Sensory Modification: +50
 Constitution Modification: +10
 Range Modification: 3x
 Distance Modification: +200
 Mass Increase: Eye +0% per eye
 Ear +0% per ear
 Nose +0% per nose
 Tactile +0% per tact.
 Cost: Eye 25,000 per eye
 Ear 30,000 per ear
 Nose . 25,000 per nose
 Tactile 33,000 per tact.
 Damage Failure: 4%
 Failure Percentage: 3%

7.4 CYBERNETIC SKIN REPLACEMENT

Cyber-skin may be used either over the entire body or only over sections. If only some areas of the user's body are covered with cyber-skin, then only a limited number of enhancements may be used. Also, systems that would normally effect the entire body only work for that section of the body.

Cyber-skin works in conjunction with other cyber-systems (e.g., it can be placed over cybernetic arms, legs, hands, etc.). It does not limit the ability of these components or their options unless a cyber-skin enhancement directly conflicts with a cyber-unit's optional system.

Example: A cyber-arm with spikes/blades (used to stab and slash) is employed with cyber-skin using the environmental control. The arm may extend the blades while the skin attempts to remain airtight.

Mark 1 Skin Replacement: A rubber or synthetic equivalent is surgically fitted over the user's body. This material has the color of skin, unless another color is preferred. In composition, it is heavier and more rigid than natural epidermal tissue. Blood does not circulate through this cyber-skin, although any incisions or anything penetrating it will cause bleeding at 2x normal rate.

Constitution: ..-15 Total Enhance: 8
 Agility: -30 Head Enhance: 1
 Quickness: -20 Torso Enhance: 2
 Empathy: -20 Abdomen Enhance: 1
 Appearance: ... -30 Arms Enhance: 1
 Mass: +15% Legs Enhance: 1
 AT: 3
 DB: +15

Body Area	Cost
Entire Body:	5,000
Head:	500
Torso:	2,000
Abdomen:	1,000
Arms:	750
Legs:	1,000

Mark 2 Skin Replacement: Advanced polymers and other synthetics have replaced the more rubbery Mark 1 cyber-skin. These new materials are more durable, flexible and lighter. Blood does not flow through this external replacement skin layer. Bleeding is normal should this material be slashed or punctured.

Constitution:-5 Total Enhance: 12
 Agility: -10 Head Enhance: 1
 Quickness: -10 Torso Enhance: 3
 Empathy: -15 Abdomen Enhance: 2
 Appearance: ... -10 Arms Enhance: 1
 Mass: +5% Legs Enhance: 2
 AT: 4
 DB: +10

Body Area	Cost
Entire Body:	7,500
Head:	1,000
Torso:	3,000
Abdomen:	1,500
Arms:	1,000
Legs:	2,000

Mark 3 Skin Replacement: Synthetic fibers inter-meshed with carbon-based molecules produce a nearly organic skin substitute. This material simulates natural skin so well that in sunlight it can burn and produce freckles. During the surgical implanting procedure, blood vessels are interwoven into the cyber-skin.

Constitution: -0 Total Enhance: 16
 Agility: -0 Head Enhance: 1
 Quickness: -0 Torso Enhance: 4
 Empathy: -5 Abdomen Enhance: 3
 Appearance: -5 Arms Enhance: 2
 Mass: +0% Legs Enhance: 2
 AT: 6
 DB: +10

Body Area	Cost
Entire Body:	12,000
Head:	2,000
Torso:	5,000
Abdomen:	2,500
Arms:	2,000
Legs:	3,000

Mark 4 Skin Replacement: This cyber-skin is grown rather than manufactured. Technicians employ similar design procedures used to create replicants. Genetic engineering allows many different types of enhancements to be implanted in the cyber-skin. No matter how many improvements are made, the skin will still look and act like normal skin. Unless, of course, an enhancement causes it to act otherwise.

For the enhancements available to this unit see the chart below. No options can fit onto or in this cyber-skin unit.

Constitution: ... +5 Total Enhance: 22
 Agility: -0 Head Enhance: 2
 Quickness: -0 Torso Enhance: 6
 Empathy: +5 Abdomen Enhance: 4
 Appearance: +5 Arms Enhance: 2
 Mass: -5% Legs Enhance: 3
 AT: 1
 DB: +20

Body Area	Cost
Entire Body:	20,000
Head:	4,000
Torso:	9,000
Abdomen:	5,000
Arms:	4,500
Legs:	5,500

Mark 5 Skin Replacement: Similar to the Mark 4 cyber-skin unit except molecutronics have been added to the organically grown component.

Constitution: ... +5 Total Enhance: 26
 Agility: -0 Head Enhance: 4
 Quickness: -0 Torso Enhance: 7
 Empathy: +5 Abdomen Enhance: 5
 Appearance: +5 Arms Enhance: 2
 Mass: -5% Legs Enhance: 3
 AT: 1
 DB: +20

Body Area	Cost
Entire Body:	30,000
Head:	5,000
Torso:	14,000
Abdomen:	10,000
Arms:	6,000
Legs:	8,000

CYBER-SKIN ENHANCEMENT AVAILABILITY CHART

Enhancements	Mark #1	Mark #2	Mark #3	Mark #4	Mark #5
Resist Elements(A)	No	Yes	Yes	Yes	Yes
Resist Cut/Puncture(A)	Yes	Yes	Yes	Yes	Yes
Sensory Awareness(C)	No	No	Yes	Yes	Yes
Energy Absorption(C)	No	No	No	Yes	Yes
Shields(C)	No	No	No	Yes	Yes
Environmentally Sealed (C)	Yes	Yes	Yes	Yes	Yes
Repair Facility(A)	No	Yes	Yes	Yes	Yes
Gravidic Control(C)	No	No	Yes	Yes	Yes
Elasticity(C)	No	Yes	Yes	Yes	Yes
Radiation Shielding(A)	Yes	Yes	Yes	Yes	Yes
Pressurized(A)	No	Yes	Yes	Yes	Yes
Damage Absorption(A)	Yes	Yes	Yes	Yes	Yes
Chemical Protection(A)	Yes	Yes	Yes	Yes	Yes
Oxygen Filtering(A)	No	No	Yes	Yes	Yes
Voice Control(C)	Yes	Yes	Yes	No*	No*
Mental Control(C)	Yes	Yes	Yes	Yes*	Yes*

(A)—Automatic; (C)—Controlled; *—All Mark 4 and Mark 5 cyber-skin units are equipped with mental control units.

Note 1: Controllable systems are either commanded by muscular motions by the user or through manual controls (knobs, switches, etc.).

Note 2: All enhancements use one enhancement slot unless implanted more than once. In this case, for each time they are implanted, it costs one slot. An enhancement that has variable levels of effectiveness counts as one enhancement, regardless of the power level.

7.5

CYBERNETIC FULL BODY REPLACEMENTS

The human mind can be implanted into a android body, allowing the human or humanoid complete control over his new synthetic body. Reasons for such a transference are broad revolve around the following:

1. When a body is so damaged that there is no effective way to save it, the human or humanoid can have his mind placed into a android body.
2. A human or humanoid desires such a transference to increase they physical abilities.

When a full body replace occurs, the statistics associated with the character change. Use the following procedure when this occurs.

1. Each of the 5 mental stats (EM, IN, ME, RE, PR) suffers a loss (temporary) equal to a roll on the rightmost column of the Stat Gain table (15+ column). In addition, there is a 20% chance that the potential(s) will suffer a loss equal to a roll on the third column of the Stat Gain table (3 column).

2. Generate 5 new physical stats (AG, CO, QU, ST, SD) just as if creating a new character (temporaries and potentials). However, the maximums listed below must be observed (the maximums apply to both the temporaries and the potentials).

3. When calculating new hits, use the Base Hits listed below (not the standard of Constitution divided by 10).

A cybernetic body does not heal normally. Most often, a cyber-repair technician must examine and repair the damage. However, some cyber units have limited self repair (if a repair rate is given below, some limited healing is present—see the text for a description).

Cybernetic Body Replacement Mark 1: A full/alloy construct that moves with servos and micro-hydraulics. The brain is placed into a special fluid filled canister found in the body's chest cavity. The mind controls the body through electronic connections from the canister to internal computers (found below the sternum area).

Maximum Constitution:	80
Maximum Agility:	60
Maximum Strength:	100
Maximum Quickness:	50
Appearance Modification:	-30
Poison Modification:	-10
Disease Modification:	-15
Soul Departure:	1
Base Hits:	50
Maximum Hits:	450
Hit Die Type:	d20
Repair Rate:	—
Body AT:	20

Cybernetic Body Replacement Mark 2:

Fewer metals and more advanced plastics make this version lighter and more maneuverable. The Mark 2 also has multiple internal computer systems about the body. This provides a higher degree of precision in actions. The brain is located within the chest cavity.

Maximum Constitution:	90
Maximum Agility:	75
Maximum Strength:	105
Maximum Quickness:	65
Appearance Modification:	-20
Poison Modification:	—
Disease Modification:	-05
Soul Departure:	1
Base Hits:	40
Maximum Hits:	300
Hit Die Type:	d15
Repair Rate:	—
Body AT:	12

Cybernetic Body Replacement Mark 3: The internal framework of the body is advanced plastics and the outer layer is made of a synthetic skin. Again, computers are situated throughout the body to increase precision of action. The Mark 3 system has a partial internal repair capability. 25% of all internal damage and 50% of all external damage can be repaired without the need of repair tech's. The brain is still located in the chest cavity.

Maximum Constitution:	101
Maximum Agility:	90
Maximum Strength:	110
Maximum Quickness:	90
Appearance Modification:	-10
Poison Modification:	+10
Disease Modification:	+10
Soul Departure:	2
Base Hits:	50
Maximum Hits:	250
Hit Die Type:	d10
Repair Rate:	1 hit/hour
Body AT:	4

Cybernetic Body Replacement Mark 4: The internal structure of the body is organic, although synthetic supports can be added. Skin and internal organs are all organic. They are grown in laboratories using DNA manipulation. Like the Mark 3 system, the Mark 4 has an internal repair ability. Since organic materials are used, self-mending is more effective. 40% of all internal damage and 75% of all external damage can be fixed without the aid of tech's. The brain is located in either the chest cavity or the skull.

Maximum Constitution:	110
Maximum Agility:	101
Maximum Strength:	120
Maximum Quickness:	100
Appearance Modification:	—
Poison Modification:	+25
Disease Modification:	+30
Soul Departure:	3
Base Hits:	60
Maximum Hits:	300
Hit Die Type:	d10
Repair Rate:	1 hit/10 minutes
Body AT:	1

Cybernetic Body Replacement Mark #5: As Mark #4, except molecutronics are integrated into the organic body. Self-repair capability is increased to 60% of all internal and 90% of all external damage. The brain is located in either the chest cavity or the skull.

Maximum Constitution:	120
Maximum Agility:	110
Maximum Strength:	130
Maximum Quickness:	110
Appearance Modification:	+10
Poison Modification:	+30
Disease Modification:	+40
Soul Departure:	3
Base Hits:	65
Maximum Hits:	300
Hit Die Type:	d10
Repair Rate:	1 hit / minute
Body AT:	1

7.6

CYBER BODY SYSTEMS

RESPIRATORY SYSTEM

Mark #	Cost
1	2,000
2	2,500
3	3,500
4	5,500
5	6,000

CIRCULATORY SYSTEM

Mark #	Cost
1	3,000
2	4,000
3	5,500
4	7,000
5	8,000

DIGESTIVE SYSTEM

Mark #	Cost
1	2,000
2	3,000
3	4,500
4	6,000
5	6,500

7.7 CYBERNETIC OPTIONS AND ENHANCEMENTS

CYBER-EYE OPTIONS AND ENHANCEMENTS

	Cost
After Imaging (E)	2,500
Extending Stalk (O)	1,000
Eye Shield (O)	600
Infra-Red Vision (E)	300
Laser Eye (O)	500
Light Filter (O)	500
Medical Scanner (O)	450
Microscopic Vision (O)	900
Mini-Weapon (O)	600
Motion Sensor (O)	1,000
Multiscanner (O)	500
Remote Vision Trans(O)	2,000
Removable Eye (O)	1,000
Repair Scanner (O)	450
Stop-Action Camera (O)	500
Targeting System (O)	900
Telescopic Vision (O)	600
Ultraviolet Vision (E)	400
Underwater Vision (E)	700
Vibration Vision (E)	1,000
X-Ray Vision (E)	600

After Imaging: The eye picks up the traces left behind by moving objects, energy discharges, etc. This after-imaging is in effect up to one hour after the object moved by or the energy was used.

Extending Stalk: Eye-balls may move out of the socket up to 1 meter. The stalks are flexible and allow the extended eye-ball to

look around corners, etc. The stalk is 1.5 cm thick, treated as AT 4, and has 5 hits.

Eye Shield: An implanted shield protects the eye from foreign debris, weapons and projectiles. Treat this shield as a +50 DB modifier for all attacks against the eye.

Infra-Red Vision: The cyber-eye is made sensitive to the low frequency band of Infra-Red (IR) rays. During normal vision, all IR is seen as dull red lines or shades.

Laser Eye: The eye has a small low-power laser built in. This system is not used for combat; it is a range-determining device (measuring the distance to the object being viewed).

Light Filter: Built over the eye's surface, this device keeps harmful UV and IR rays from entering the eye as well as dimming the brightness of normal light. The user can see normally, even if looking into an eclipse.

Medical Scanner: A medical scanner is implanted into the eye. Its readings are seen as organized thoughts by the user.

Microscopic Vision: A built-in device allows vision to magnify beyond normal vision. Magnification increments are 1/50x, 1/100x, 1/200x, 1/500x and 1/1000x.

Mini-Weapon: A mini-weapon is mounted into the eye (the utility cell is mounted elsewhere). Treat as a Mark 1 version of the weapon chosen. The user looks and shoots. Unless he has a targeting system in the other eye, he will always have an OB modification of -15 due to awkwardness.

Motion Sensor: This sensor is active even if the eyes are closed. A motion detection field emanates from the eye, engineered to cover 1,000 square meters around the user. The sensor can be set for various sizes: anything, mouse-size, cat-size, man-sized. The sensor alerts the user by sending him a warning signal.

Multiscanner: A multiscanner is implanted into the eye. Its readings are seen as organized thoughts by the user.

Remote Vision Transmitter: A cyber-eye can be removed from the eye-socket. What it sees can be transmitted to the user. Maximum range is 1 kilometer.

Removable Eye: The cyber-eye can be removed. Whatever options and enhancements it has can be controlled remotely by the user. Maximum range is 100 meters.

Repair Scanner: A repair scanner is implanted into the eye. Its readings are seen as organized thoughts by the user.

Stop-Action Camera: A micro-camera takes pictures, the film is loaded into and removed from the cyber-eye. The camera takes perfect pictures of objects moving up to 3000 meters/round.

Targeting System: Allows the user to aim weapons more accurately (PB/Melee:+05 Short:+10 Medium:+20 Long:+25 OB). This system also includes a 'predict' feature that anticipates the target's movement (+10 OB all ranges, used only to cancel penalties from target motion and not cumulative with other bonuses).

Telescopic Vision: A built-in device allows vision to extend much farther than humanly possible. Range increases in increments of: 50x, 100x, 200x, 500x and 1000x. Takes one round to refocus with the new setting.

Ultraviolet Vision: The cyber-eye is made sensitive to Ultraviolet (UV) rays. During normal vision, UV is seen as shimmering blue streaks.

Underwater Vision: Eyes alter their configuration to see through water (adjusting for water motion and distortion).

Vibration Vision: Vision picks up the subtle changes of vibration. All minute motions are seen as waves around objects. Vibrations that are either very light or emanate from far away may be sensed using Perception skill at +20.

X-Ray Vision: The vision system has been made sensitive to the high frequency X-rays. During normal vision, X-rays appear as silvery streaks.

CYBER-EAR OPTIONS AND ENHANCEMENTS

	Cost
Ear Shield (O)	500
Mult. Sound Discriminator (O)	1,300
Noise Filter (E)	800
Remote Audio Trans. (O)	2,000
Removable Ear (O)	1,000
Sound Determ. Computer (O)	700
Sound Distortion Rectifier (O)	1,000
Sound Magnification (O)	600
Targeting System (O)	1,200
Translator Disk (O)	600
Ultra-Sonic Hearing (E)	700

Ear Shield (O): An implanted shield protects the ear from foreign debris, weapons, and projectiles. Treat this shield as a +50 DB modifier for all attacks against the ear.

Multiple Sound Discriminator (O): The cyber-ear's computer separates out up to twenty different sounds, making each distinct and allowing the user to listen to the one he wants.

Noise Filter (E): The cyber-ear reduces the sound by up to 100 decibels. The amount of sound reduction varies with noise intensity.

Remote Audio Transmitter (O): As Remote Vision Transmitter, but the ear transmits sounds.

Removable Ear (O): As Removable Eye, but the ear is removed.

Sound Determination Computer (O): A computer analyses sounds and determines their source.

Sound Distortion Rectifier (O): Sounds that have been altered or distorted due to water, tunnels, etc, can be repaired and understood.

Sound Magnification (O): Faint or distant sounds are amplified by up to 1,000x.

Targeting System (O): A built-in computer determines the location of one moving or stationary object (unless this object makes no motions whatsoever, including breathing). The user is aware of their position (no OB mod) up to a range of 100 meters.

Translator (O): A computer can translate languages. The effect is the user hearing whatever is said as if it were spoken in his own language. Comes with a disk that can hold up to 10 different languages.

Ultra-Sonic Hearing (E): The eye picks up sounds in the ultrasonic range. The frequencies perceivable are 20,000 vibrations per second (just above human range) to 1,000,000 vibrations per second.



CYBER-NOSE OPTIONS AND ENHANCEMENTS

Cost

Allergy Immunity (E)	200
Gas Emitter (O)	600
Mult. Scent Discriminator (O)	1,400
Oxygen Filter (O)	800
Remote Olfactory Trans. (O)	1,900
Removable Nose (O)	900
Scent Determ. Computer (O)	1,100
Scent Discriminator (O)	800
Scent Magnification (O)	700
Targeting System (O)	1,300
Underwater Filter (O)	900

Allergy Immunity (E): The user is immune to normal allergies. Unknown and alien allergies are not totally effected: user receives a RR versus them (determined by the GM).

Gas Emitter (O): Small tanks hold condensed gas. When activated, the user's nose closes off the trachea and forces the gas out of the nose. Up to 25 cubic meters are affected.

Multiple Scent Discriminator (O): As Multiple Sound Discriminator, but odors are detected.

Oxygen Filter (O): As the Underwater Breath / Water Filter, but the cyber-nose only allows oxygen to enter the lungs. If there is no oxygen (trace amounts of oxygen is considered no oxygen) the filter will no allow anything in, while active.

Remote Olfactory Transmitter (O): As Remote Vision Transmitter, but the nose is removed and odors are sensed.

Removable Nose (O): As Removable Eye, but the nose is removed.

Scent Discriminator (O): A computer determines the source of an odor.

Scent Determination Computer (O): As Sound Determination Computer, but odors are identified.

Scent Magnification (O): As Sound Magnification, but faint and distant odors are amplified.

Targeting System (O): As Cyber-Ear Targeting System, except the olfactory system does the tracking.

Underwater Filter (O): The nasal cavity is modified to remove oxygen from water and stop the water from reaching the lungs. The user simply breathes in water to operate the system.

RESPIRATORY SYSTEM OPTIONS AND ENHANCEMENTS

Cost

Atmospheric Processor (O)	1,500
Breath Retainment (E)	
5 Minutes	500
10 Minutes	700
20 Minutes	1,200
Each Added 5 Minutes	+500
Compressed Oxygen Supply (O)	600
Gas Emitter (O)	1,200
Increased Exhaustion Points (E)	
+10 EPs	1,000
+25 EPs	1,500
+50 EPs	2,500
Each Added +25 EPs	+1,000
Oxygen Filter (O)	900

Atmospheric Processor (O): Similar to the Oxygen Filter, but the unit performs chemical changes to create useable oxygen.

Breath Retainment (E): The amount of time breath can be held for is increased.

Compressed Oxygen Supply (O): Enough oxygen for one week.

Gas Emitter (O): Small tanks in the trachea hold condensed gas. When activated, the user's throat closes off and forces the gas from the mouth (and/or nose). Area of affect is 40 cubic meters.

Increased Exhaustion Points (E): The system maximizes the usage of oxygen rich blood and allows for greater exhaustion limits.

Oxygen Filter (O): As the cyber-nose option.

CIRCULATORY SYSTEM OPTIONS AND ENHANCEMENTS	
	Cost
Adrenalin Boost (O)	
+10 to actions	1,200
Each Added +10	+800
Advanced Clotting (E)	
-1 Hit/Rnd (Bleeding)	1,300
Each Added -1 Hit/Rnd	+700
Compr. Blood Storage (O)	600
Height. Blood Reprod. (O)	2,000
Reduced Exhaustion (E)	
-1 EP/Round	1,000
-3 EPs/ Round	2,000
-5 EPs/Round	4,000
Each Added -1 EP/ rnd	+2,000

Adrenalin Boost (O): Increases the amount of adrenalin in the bloodstream giving a boost to all actions. The boost is given in +10 increments. Too much adrenalin, although, can cause heart failure, user makes a Constitution check (roll plus Constitution bonus greater than 100) when activating this system. Each +10 increases the chance by -03%.

Advanced Clotting (E): Special cyber-platelets in the blood speed up blood clotting in all wounds.

Compressed Blood Storage (O): A special tank implanted into the body holds 10 pints of compressed blood. When the body loses too much blood, this storage tank releases enough to return the body to a safe operating level.

Heightened Blood Reproduction (O): Special cyber-organs step up blood reproduction. The effect is increased wound recovery rates. All recovery times are halved.

Reduced Exhaustion (E): Superior blood and circulatory organs allow for heightened endurance. This is seen in a reduction in Exhaustion Point cost for performing actions. If a user has an EP reduction of -5 and only uses 3 EPs during a round, he actually earns back 2 EPs. Note: The actual EP maximum is not increased and cannot be exceeded with this option.

DIGESTIVE SYSTEM OPTIONS AND ENHANCEMENTS	
	Cost
Auto-Regurgitation (E)	500
Compressed Food Storage (O)	500
Enhanced Digestive Juices (E)	600
Filter Toxins/Poisons (O)	800
Height. Digestive Process (E)	
Healing Rate Inc. by 0.2	2,500
Healing Rate Inc. by 0.5	6,000
Each Additional 0.5 Inc.	+2,000
Impr. Digestive Efficiency (E)	
Stat Increase Rolls +3	6,000
Stat Increase Rolls +5	10,000
Each Additional +1 Inc.	+10,000
Optimized Fat Breakdown (E)	
Hunger Pen. Red. by 10% 1,000	
Hunger Pen. Red. by 20% 1,500	
Hunger Pen. Red. by 35% 2,500	
Each Additional 05% Red.	+1,000
Selective Digestion (O)	2,500

Auto-regurgitation (E): The body has a special feature that allows any recently swallowed materials to be disgorged. This is handy when someone realizes they have just quaffed poison, or to quickly hide and recover a small object. This feature takes 1 round to activate.

Compressed Food Storage (O): Similar to the Compressed Blood Storage option, but food is held and released when needed.

Enhanced Digestive Juices (E): Food is digested in half normal time, allowing growth rates to increase.

Filter Toxin/Poison (O): A special cyber-filter and computer recognition system stops a poison/toxin from entering the digestive track. The filter must be replaced monthly (sooner at GM's discretion). Each poison/toxin requires a separate filter.

Heightened Digestive Process (E): Improved digestive techniques raises the healing rate of the body.

Improved Digestive Efficiency (E): Similar to Heightened Digestive Process, but this improves growth rate. This variable enhancement works to add to statistic gain rolls.

Optimized Fat Breakdown (E): This enhancement reduces the need for food for longer periods of time. The fatty cells are broken down and used more sparingly. Each 5% reduction represents an extra 2 days a human can go without food.

Selective Digestion (O): The cyber-system allows gastric juices to digest only objects specified by the user. Those items that are not to be digested are covered with a special layer of skin implanted into the stomach. The covered objects will pass through the system undigested.

CYBER-SKIN ENHANCEMENTS	
	Cost
Chem. Protection: rk 1, 2, 3	5,000
Chem. Protection: rk 4, 5	8,000
Damage Reduction (E)	see chart
Elasticity (E)	4,000
Environmentally Sealed (E)	500
Gravitic Control (E)	5,000
Mental Control	5,000
Oxygen Filtering	5,000
Pressurized (E)	see chart
Radiation Shielding (E)	see chart
Repair Facility: Mark 2, 3 (E)	2,000
Repair Facility: Mark 4, 5 (E)	5,000
Resist Cut/Puncture (E)	
+5 to DB	600
Each Additional +5	+600
Resist Elements (E)	
+5 to RR	400
Each Additional +5	+400
Sensory Awareness (E)	
+5 to Perception	500
Each Additional +5	+500
Shields (E)	2,000
Voice Control	1,000

Chemical Protection: Special glands are implanted on the cyber-skin. These emit chemical absorbents (surfactants) that coat chemicals and acids that land of the skin. This system lessens the effect of or completely negates the destructive agents found in some chemicals and acids. This system is activated on the round of attack and takes one round to counter the chemical(s). The effect is +50 to the user's RR versus chemicals and acids. The chemical protection system takes the space of two enhancements.

The glands have enough absorbent for five uses. Mark #1, #2 and #3 systems need injections to vitalize the glands. Mark #4 and #5 are filled with the ingestion of a pill.

Damage Reduction: When activated, the AT of the skin changes. When this system is engaged, the Elasticity enhancement is automatically turned off. This enhancement limits the number of other enhancements allowed in the cyber-skin depending on the Mark # of the unit. Note: this option only activates upon a kinetic or other impact strike to the body of the user.

DAMAGE REDUCTION

Mark #	DB Mod	AT	Enhancement Reduction	Cost
1	+10	7	1	1,500
2	+15	8	1	2,500
3	+25	10	1	6,000
4	+40	9	—	10,000
5	+40	9	—	12,000

Elasticity: The cyber-skin can alter its shape and extend past the user's bones. The skin can extend to twice its normal size.

Example: *The skin on a finger extends past the tip of the last digit to twice its size.*

Example: *When the user is lying prone, the skin above his shoulders and around his waste can reach out and act like a pseudo-pods. He would then be able to crawl without using either his arms or legs.*

The cyber-skin has no real strength of its own and is limited to menial tasks (light maneuvers or less). All concussion attacks are reduced by -20 due to the skin's ability to cushion the blow.

Environmentally Sealed: The cyber-skin is designed to close all pores and body orifices upon command. A thin transparent film closes over and seals the ears, eyes, nostrils, mouth, etc. Treat this film as AT 1 with 3 hits.

Unless an oxygen supply is available, the user can only keep this seal intact so as long as he can hold his breath. Afterwards he will suffocate. The Oxygen Filtering enhancement (see below) provides the necessary air for the user to breath while the seal is active.

Gravitic Control: The cyber-skin is designed to reverberate against a natural gravity pull. Special individualized cells rotate at high speeds in the opposite direction of spin of the gravity source. The effect is that the user may float freely. Vertical motion is easily controlled although lateral motion is not. The user accelerates at a rate of 5'/round with a maximum velocity of 75'/round, vertically.

The user may levitate in this manner for two hours before the gravitic control system must recharge.

Mental Control: As Voice Control, except the commands are issued mentally. Note Mark #4 and #5 systems always use Mental Control. All controllable enhancements are linked to the user's mind. If this system is disengaged, the enhancements can be operated through standard means (muscular motions

and manual control).

Oxygen Filtering: The cyber-skin absorbs air by osmosis through microscopic filters. The oxygen is then processed and sent both around the interior of the body and to the lungs. This system works without a power source and is designed to operate with the Environmental Seal Enhancement.

Pressurized: The cyber-skin is able to molecularly expand and contract to match atmospheric temperatures. The greater the ability to equalize pressure, the lesser the ability to freely maneuver. The bonus is added to the user's RR versus vacuum and atmospheric pressure attacks (e.g., the bends). Due to the molecular make up of cyber-skin with this enhancement, the number of other enhancements allowed is reduced.

be planted within the body; see below). The effective radiation protection varies with the thickness of this dense material. The thicker the material, the less swift and agile the user becomes. The Bonus is added to the user's RR vs. radiation attacks.

Repair Facility: Small synthetic or organic 'packages' are implanted throughout the cyber-skin. When damage is taken to the body, these 'packages' ooze out special liquids. Each different level of Cyber-Skin utilizes a different material. The liquid plugs the damaged area, either by filling a hole or covering a damaged layer of skin. There is a 10% chance per repair that scars are left (-03 to Appearance). The repair facility has enough liquid for 5 uses.

While active, the repair liquid reduces bleeding by -1 hit per round in Mark #2 and #3 cyber-skin and -3 hits per round in Mark #4 and #5 units. The repairing process is slowed with Mark #2 and #3 systems to lessen the chances of internal hemorrhaging. There is a 10% of hemorrhaging in these systems and 0% in Mark #4 and #5 units.

If hemorrhaging occurs, the user operates at -2 per point per round of bleeding. He also has a cumulative 5% chance of falling unconscious while this internal bleeding continues.

If the user has a compound fracture or

PRESSURIZED CYBER-SKIN

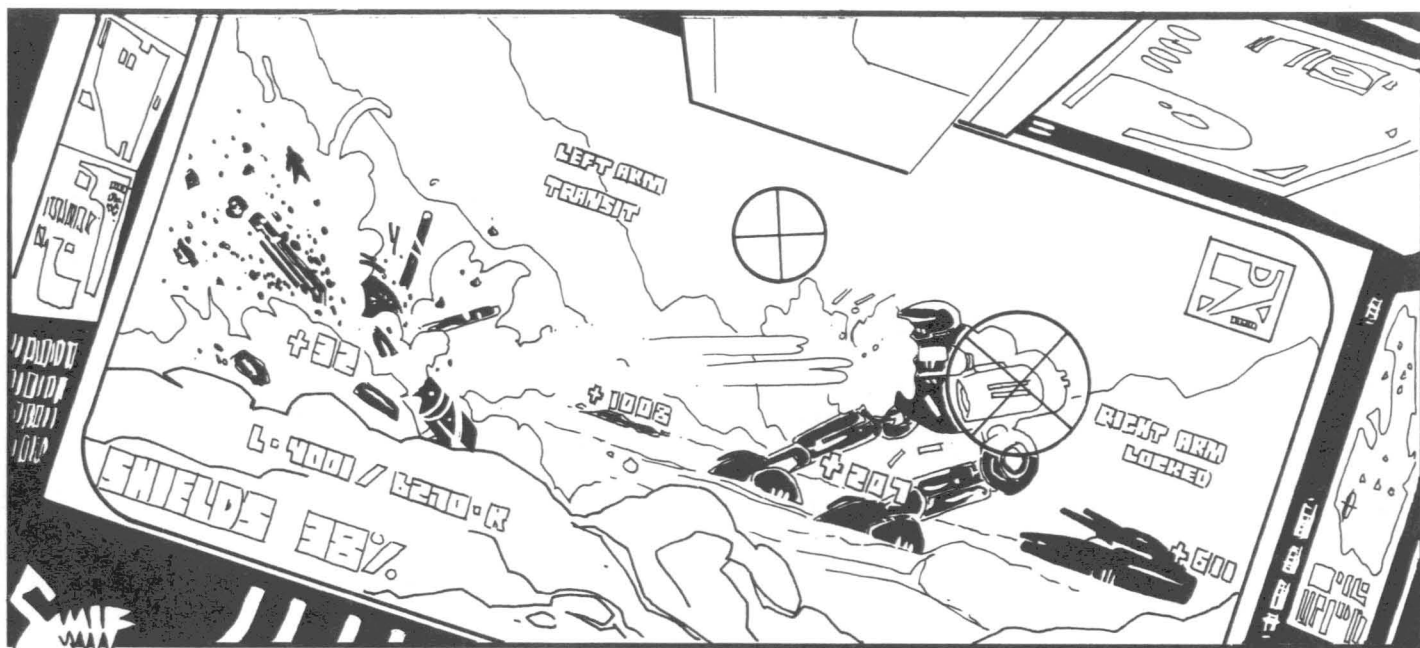
Bonus	AG Mod	QU Mod	Enhancement Reduction	Cost
0-20	-05	-10	—	1,000/+5
25-35	-10	-15	-1	1,500/+5
40—50	-15	-25	-3	2,000/+5
Each added +05	-05	-10	-1	2,500

Radiation Shielding: A thin layer of dense molecular material is implanted within the cyber-skin. This reduces the effect of radiation upon the user's body (although it limits the number of other enhancements able to

some other item impaled through the cyber-skin, the repair liquid will ooze around it, making a temporary seal. If the item is then removed, the bleeding resumes.

RADIATION SHIELDING

Bonus	AG Mod	QU Mod	Enhancement Reduction	Cost
5—25	-0	-0	-1	1,000/+5
30—50	-05	-05	-2	1,500/+5
55—75	-10	-10	-4	2,000/+5
Each added +10	-05	-05	-2	3,000



Resist Elements: The cyber-skin must be designed to resist each element separately (although the skin can be built to resist many different elements at once). This protection is available in variable amounts (in degrees of +5 added to the user's RR).

Resist Cut/Puncture: The cyber-skin is more durable, allowing it to lessen or entirely ward off a cutting or slashing attack. The amount of protection is variable (in degrees of +5, added to the user's DB during attacks).

Sensory Awareness: The cyber-skin is made sensitive to the fluctuations created by vibrations, sound waves and other similar stimulus. The degree of sensitivity is variable (increasing in bonuses of +5 added to the user's Perception skill).

Shields: This forms a protective buffer around the user. The shield is powered by an external power supply (may be surgically implanted into the user's body.)

This shield acts as one of the four standard shields. Having this enhancement implanted multiple times allows multiple shields to be used. These shields may be of similar or different types.

Since the shield is powered by a power source (cell, cartridge, pack, etc.), it is treated as a normal shield. See *TB* Section 3.52.

Voice Control: This system allows the user to activate the controllable enhancements through the use of vocal stimulus. See the Cyber-Skin Enhancement Availability chart. Note: Mark #4 and #5 systems never use this enhancement. All controllable enhancements are linked to the Voice Control system. If this system is disengaged, the enhancements can be operated through standard means (muscular motions and manual control).

CYBER-HAND OPTIONS AND ENHANCEMENTS

	Cost
Computer Jack (O)	200
Extending Digits (O)	1,000
Extending Wrist (O)	1,200
Flex and Reform (E)	2,500
Gas Emitter (O)	900
Hardened Finger Tips (E)	600
Lighter (O)	100
Mini-Weapon (O)	500
Multi-Tool (O)	1,500
Retracting Blades/Spikes (O)	600
Rotating Wrist (O)	700
Sensor Implants (O)	1,000
Strength Increase (O)	1,000
Wrist Grapple (O)	2,500

Computer Jack (O): A probe extends from one of the user's fingers that can communicate with most computers.

Extending Digits (O): The fingers themselves can extend up to one meter. They can bend and be manipulated as needed (with multiple joints).

Extending Wrist (O): As Extending Digits, only the wrist is affected.

Flex and Reform (E): The skin and bone structure of the hand allow it to reshape and mold itself around a solid object. Once in the new form it retains its innate strength. The time to change shape varies with the cyber-system.

System	Time
Mark #1	10 Rounds
Mark #2	7 Rounds
Mark #3	3 Rounds
Mark #4 and #5 .	2 Rounds

Gas Emitter (O): As the Cyber-Nose option, except the gas is emitted from the hand (either a finger tip or the palm).

Hardened Finger Tips (E): The fingers are hardened, equivalent to AT 20. They are used to puncture and rip. If employed as claws, treat attacks as +25 Medium Claw attacks or +25 to all Martial Arts Strikes.

Lighter (O): A single finger emits a small controlled stream of fire. The exact size of the flame is variable. The most common use of this option is to light cigarettes and similar material or the lighting of primitive fuses.

Mini-Weapon (O): A single mini-weapon may be mounted within the hand. The barrel of the weapon may be mounted in any finger or any other part of the hand. The power supply, for energy weapons, is also located in the hand. Treat as a Mark 1 version of the weapon selected.

Multi-tool (O): The hand is replaced by a multi-tool unit. Within this unit are the most commonly employed tools, hammer, screw drivers, wrenches, etc. The power unit also acts as an air compressor to power impact tools.

Retracting Blades/Spikes (O): Small blades or spikes may extend from the hand from several different areas. Once extended, the blades lock into place, and will retract only upon command. The blade/spike weapon must be developed separately as a one handed edged weapon.

Rotating Wrist (O): The wrist may turn 360° and do so at speeds of up to 1,000 rpm. If used in conjunction with a blade/spike, the hand becomes a drill or a deadly weapon. +100 to ATs 1-4, +50 to ATs 5-8, +20 to ATs 9-12, +0 to ATs 13-16 and -25 to ATs 17-20.

Sensor Implants (O): Small sensors are implanted along the hand and fingers. They are controlled by internal computers. They may be set to detect almost any energy source and, or object. Maximum range 30 meters.

Strength Increase (O): Either a standard or variable system. Superior strength plays an integral factor in most physical activities. This system has the ability to increase strength through two different types of enhancements.

The unit has an increased strength bonus at a set value. During operation, the system operates either with the full enhancement or none at all (i.e., using the user's base strength modification).

Strength increase maximums are based upon the Mark of the system.

Cyber-System	Maximum
Mark 1	+80
Mark 2	+80
Mark 3	+70
Mark 4 and Mark 5	+70

Note: *These enhancers are only effective on maneuvers with his hands (i.e., crushing things, finger manipulations, etc.). If the user wished to perform an action that needed another part of his body (e.g., arm), it would need to have one of the following:*

- the same strength enhancements or
- a skeletal enhancement or
- a cyber-body replacement designed for this strength.

All cyber-systems can use Strength Enhancements.

Wrist Grapple (O): The hand, with the fingers, acts as a grappling hook. Within the wrist is a winch and cable gun that shoots the hand and then reels it back in. The winch is powerful enough to lift the user plus an amount equal to his weight again.

CYBER-ARM OPTIONS AND ENHANCEMENTS

	Cost
Extending Arms (O)	2,500
Hardened Joints (E)	1,000
Mounted Weapons (O)	1,000
Multi-Flex (E)	700
Retracting Blades/Spikes (O)	700
Retracting Fins (O)	1,200
Retracting Weapons (O)	1,500
Strength Increase (O)	1,000

Extending Arms (O): Similar to Extending Digits, except arms may be extended.

Hardened Joints (E): As Hardened Finger Tips, but the arm is hardened. Treat all attacks as +25 Medium Bashes or +25 to any Martial Arts Strikes.

Mounted Weapons (O): Up to Mark 3 weapons may be mounted on the exterior surface of the arm. The power supply is mounted outside as well. The weapon may be removed at any time. Mounted weapons do not take up any option spaces.

Multi-Flex (E): The arm's joints are designed to allow complete bending (e.g., the elbow bends both directions equally). This option affects wrists, elbow and shoulders. +50 to all Contortion skill checks.

Retracting Blades/Spikes (O): As the cyber-hand option.

Retracting Fins (O): Thin fibrous fins extend from the arms. For use with high speed air maneuvers and underwater movement (adds +25 to maneuvers in air and underwater).

Retracting Weapons (O): Similar to Mounted Weapons, but up to Mark 2 weapons can be placed inside a cyber-arm. When activated it extends out of the arm, or the hand and wrist bend out of the way. The power supply, for energy weapons is found within as well.

Strength Increase (O): As the cyber-hand Strength Increase option.

CYBER-FOOT OPTIONS AND ENHANCEMENTS

	Cost
Extending Toes (O)	900
Flex and Reform (E)	2,500
Hardened Toes (E)	800
Mounted Weapons (O)	1,200
Multi-Tool (O)	1,500
Retracting Blades/Spikes (O)	1,000
Retracting Fins (O)	1,000
Retracting Weapons (O)	1,500
Rocket/Jet Engines (O)	2,000
Spring Action (O)	1,000
Strength Increase (O)	1,000

Extending Toes (O): Similar to Extending Digits, except toes may be extended.

Flex and Reform (E): As the cyber-hand Flex and Reform option.

Hardened Toes (E): As the cyber-hand option Hardened Finger Tips. Treat all attacks as +25 Medium Claw attacks or +25 Martial Arts Sweeps.

Mounted Weapons (O): As the cyber-arm Mounted Weapons option, but only up to Mark 2 weapons can be mounted.

Multi-Tool (O): Similar to the cyber-hand Multi-Tool option.

Retracting Blades/Spikes (O): Similar to the cyber-hand Retracting Blades/Spikes option.

Retracting Fins (O): Similar to the cyber-arm Retracting Fins option.

Retracting Weapons (O): As the cyber-arm Retracting Weapons option, but only up to Mark 1 weapons can be used.

Rocket/Jet Engines (O): Small compressed rocket fuel tanks and rocket engines extend from the bottom of the user's feet. Maximum velocity is 250 meters / round. The tanks hold enough fuel for one hour of flight. Jet engines allow velocities of 100 meters/round and five hours of flight. With the jet variant, air intake is located by the ankles.

Spring Action (O): Special ankle elasticity fibers allow the user to jump and bounce higher. All jumps and other similar maneuvers gain +20 and total distance increases by 2x.

Strength Increase (O): As the cyber-hand Strength Increase option.

CYBER-LEG OPTIONS AND ENHANCEMENTS

	Cost
Balance Enhancer (O)	700
Hardened Joints (E)	1,000
Increased Speed (O)	2,000
Mounted Weapons (O)	1,200
Retracting Blades/Spikes (O)	1,200
Retracting Fins (O)	1,300
Retracting Weapons (O)	1,700
Strength Increase (O)	1,000
Strength Extending Legs (O)	1,200

Balance Enhancer (O): Micro-gyros installed into the legs improve all balance maneuvers by +25.

Extending Legs (O): As the cyber-hand Extending Digits option, except the legs may be extended.

Hardened Joints (E): As the cyber-hand Hardened Arms option. Treat all attacks as +40 Medium Bash or +40 Martial Arts Sweeps.

Increased Speeds (O): The cyber-limbs are modified to work faster, movement speeds are increased by 25%.

Mounted Weapons (O): Similar to the cyber-arm Mounted Weapons option.

Retracting Blades/Spikes (O): Similar to the cyber-hand Retracting Blade/Spikes option.

Retracting Fins (O): As the cyber-arm Retracting Fins option.

Retracting Weapons (O): Similar to the cyber-arm Retracting Weapons option.

Strength Increase (O): As the cyber-hand Strength Increase option.

CYBER-TORSO OPTIONS AND ENHANCEMENTS	
	Cost
Mounted Weapons (O)	2,000
Rein. Rib Cage (E)	1,000
Retr. Armor Ribs (O)	2,500
Retr. Rocket Packs (O)	3,000
Retr. Spine Blades (O)	1,000
Retr. Weapons (O)	2,500
Retracting Wings (O)	2,500
Rocket Packs (O)	2,300
Strength Increase (O)	1,000

Mounted Weapons (O): As the cyber-arm Mounted Weapons option, but up to Mark 4 weapons can be employed.

Reinforced Rib Cage (E): The users ribs are lined with an advanced alloy or composite giving them a +50 RR versus breakage. Internal chest damage is ignored if the ribs are not broken.

Retracting Armor Ribs (O): Similar to the Reinforced Rib Cage, but the armor extends to completely seal off the chest cavity, treat as AT 20 with a +20 DB.

Retracting Rocket Packs (O): As the cyber-foot Rocket/Jet Packs option, but they extend from the user's back. They may be used in conjunction with Retracting Wings.

Retracting Spine Blades (O): Similar to the cyber-hand Retracting Blades/Spikes, but they extend from the spine. Neat effect. Attacking with these spikes must be developed separately and will always suffer a -35 OB modification (due to the awkward nature of the weapon).

Retracting Weapons (O): As the cyber-arm Retracting Weapons option, but up to Mark 3 weapons can be used.

Retracting Wings (O): Similar to retracting fins, but large enough to sustain the user's body in flight with rocket or jet engines or just gliding. When used with engines, they add +50 to all flying maneuvers.

Rocket Packs (O): As the cyber-foot Rocket/Jet Packs option, but they extend from the user's back. They may be used in conjunction with Retracting Wings.

Strength Increase (O): As the cyber-hand Strength Increase option.

CYBER-ABDOMEN OPTIONS	
	Cost
Balance Enhancer (O)	1,500
Extending Abdomen (O)	2,000
Mounted Weapons (O)	2,000
Retr. Abdomen Shld (O)	3,000
Retracting Fins (O)	1,000
Retracting Weapons (O)	2,500
Strength Increase (O)	1,000
Strength Multi-Flex (O)	1,000

Balance Enhancer (O): As the cyber-foot Balance Enhancer option.

Extending Abdomen (O): As the cyber-hand Extending Digits option, except body may extend.

Mounted Weapons (O): As the cyber-arm Mounted Weapons option.

Multi-Flex (O): As the cyber-arm Multi-Flex option, but the lower spine can twist around 360° and completely backwards and forward.

Retracting Abdomen Shield (O): As the Retracting Armor Rib Cage option, but it covers the abdomen.

Retracting Fins (O): As the cyber-arm Retracting Fins option.

Retracting Weapons (O): As the cyber-arm Retracting Weapons option.

Strength Increase (O): As the cyber-hand Strength Increase option.

CYBER-HEAD OPTIONS AND ENHANCEMENTS	
	Cost
Communication Link (O)	1,000
Mounted Weapons (O)	1,000
Neural Computer Link (O)	5,000
Rein. Spinal Connect. (E)	1,000
Retract. Skull Shield (O)	3,000
Retracting Orifice Portals (O)	1,200
Retracting Weapons (O)	1,500
Sensors (O)	1,000

Communication Link (O): Similar to the Neural Computer Link, but allows communication through radio waves. Maximum range is 10 kilometers.

Mounted Weapons (O): As the cyber-arm Mounted Weapons option, but up to Mark 2 weapons can be used. Retracting Weapons (O): As the cyber-arm Retracting Weapons option, except only Mark 1 weapons are utilized.

Neural Computer Link (O): A mental link to the brain that enables the user to communicate with computers.

Reinforced Spinal Connection (E): Reduces the effect of shock by one round. Maneuvering while in shock is lowered 10%.

Retracting Orifice Portals (O): Similar to the cyber-eye Eye Shield option, but covers the ears, mouth and nostrils as well. These portals are air tight, but allow the user to see, speak and hear.

Retracting Skull Shield (O): As the Retracting Rib Cage option, but covers the skull.

Retracting Weapons (O): As the cyber-arm Retracting Weapons option, except only Mark 1 weapons are utilized.

Sensors (O): A sensor is implanted into the user's skull. Treat as normal sensors.

CYBER-BODY OPTIONS	
	Cost
Skeletal Reinforcement (O)	5,000
Strength Increase (O)	2,000

Skeletal Reinforcement (O): For use with full body Strength Enhancement. This option takes the stress created by performing advanced feats of strength away from the body. Instead of muscles and tendons tearing, the cyber-reinforcement takes the counterforces.

Strength Increase (O): As the cyber-hand Strength Increase, but the whole body is increased. Increase all maximum Strength limits by +10.

OTHER CYBERNETIC OPTIONS

Most items can be made part of a cybernetic component. Such items have 1.25x to 2.5x the normal item's cost. Custom designed cybernetic options must be handled by the GM on a case-by-case basis, using the above details as guidelines.

7.8 OTHER CYBERNETIC UNITS AND SYSTEMS

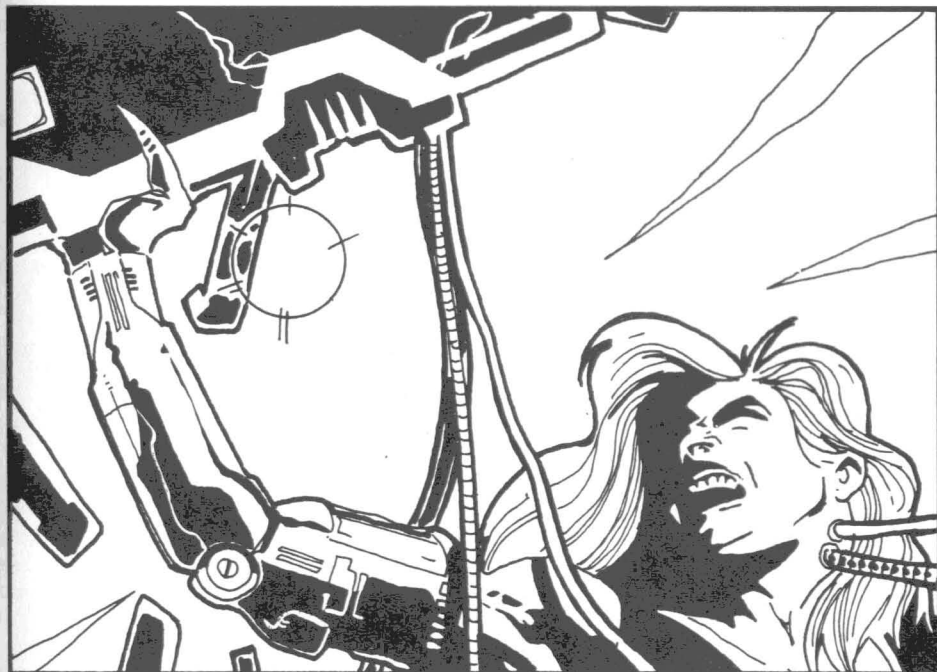
Cybernetic body parts and systems not covered in this section can be constructed using the Mark 1 - 5 system. Base costs and options are determined by the GM.

7.9 DARK SPACE SOFTECH AND CYBERNETIC COMPONENTS

In the genre book, *Dark Space*, Softech covers bioengineered alterations and enhancements for the body. Microrgs, Living Grafts, Buds, Softech Implants and Applications are completely compatible with Mark 4 and 5 Cybernetic Systems. Treat softechs as enhancements, not options.

CYBER-UNIT MAXIMUM CAPACITIES

Cyber-Unit	Options	Enhancements
Eye	1	2
Ear	1	2
Nose	1	2
Respiratory System	2	2
Circulatory System	2	2
Digestive System	2	2
Hand	2	2
Arm	3	2
Foot	2	2
Leg	3	2
Torso	4	2
Abdomen	3	2
Head	1	1



CYBERNETICS MALFUNCTION TABLE

This table covers all attacks against and damage to cybernetic components. In the event that enough damage is delivered to destroy the unit, use the internal disruption table instead. Some of these results may seem light, even though they are found in C, D and even the E columns. Remember, the critical's effect on one cyber-unit can vary greatly from another (e.g., a arm that stutters and remains inactive for ten rounds, 100 seconds, is not as drastic as a respiratory system that receives the same effect).

The following notes apply to specific results found on the table:

Note 1: When a system is stuttering, it will continue to due so for its given duration (even if the unit is turned off and then back on). A cyber-technician with a successful skill roll can cancel the effect of a stutter.

Note 2: When a system that operates all the time without the need of maneuver rolls receives a flaw or major flaw, it will need to make one maneuver roll to keep operating smoothly.

Example: a respiratory system operates around the clock without the need for a roll. It takes a hit and needs to make a roll on the malfunction table. The result is a major flaw, -50 for 5 rounds. A roll is now needed. Roll the maneuver on the mundane table, modified by the penalty.

If there is a negative effect, it lasts the duration of the flaw (using the above example, 5 rounds).

Note 3: When a system receives a system failure result, it automatically shuts down. There is a small percent chance of it activating again. If the unit does re-engage, it will stay active with no ill effects. When it does shut down again (either by the user's choice or outside effect), the system failure will again limit the unit's chance of reactivating. This continues until the unit is fully repaired.

Note 4: A system short is a combination of a major flaw and an energy overload. The system has taken damage and energy is discharged either into itself or into the user's body.

CYBERNETICS MALFUNCTION TABLE

	A	B	C	D	E
01 - 25	Just a minor power flux. A twitch, no problems or lasting effects.	System flaw. Due to the disturbance, the cyber-unit operates at -10 next round.	Major glitch. Due to the disturbance, the system stutters for 2 rounds. All actions using this unit in "Fail to Act."	Major glitch. Due to the disturbance, the system stutters for 5 rounds. All actions using this unit in "Fail to Act."	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart in 5 rounds.
26-30	Minor glitch. The effected system operates at -5 next round.	Glitch. The system stutters for 2 rounds. All actions using this unit result in "Fail to Act."	System flaw. Due to the disturbance, the cyber-unit operates at -20 for 3 rounds.	Major flaw. The disturbance causes the system to operate at -50 for 5 rounds.	Major glitch. From the shock, the cyber-unit stutters for the next 5 rounds. All actions using this unit result in "Fail to Act."
31-40	Minor glitch. The effected system operates at -10 next round.	System flaw. Due to the disturbance, the cyber-unit operates at -15 for 3 rounds.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart in 2 rounds.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart in 5 rounds.	Major flaw. The disturbance causes the system to operate at -75 for 10 rounds.
41-50	Glitch. The effected system stutters for 1 round. All actions using this system result in "Fail to Act."	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart on the next round.	Major glitch. The system stutters for 5 rounds. All actions using this unit result in "Fail to Act."	System short. Unit operates at -10 until repaired. User takes +15 hits.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart in 10 rounds.
51-60	System flaw. The shock temporarily lessens the cyber-unit's effectiveness. -15 for 3 rounds.	Major glitch. The system stutters for 4 rounds. All actions using this unit result in "Fail to Act."	System short. Unit operates at -5 until repaired. User takes +5 hits.	Major glitch. From the shock, the cyber-unit stutters for the next 3 rounds. All actions using this unit result in "Fail to Act."	System short. The blow causes the cyber-unit to operate at -20 until repaired. The user takes +25 hits.
61-65	Major glitch. The system stutters for 2 rounds. All actions using the system result in "Fail to Act."	System flaw. Due to the disturbance, the cyber-unit operates at -20 for 5 rounds.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart in 5 rounds.	Major flaw. The disturbance causes the system to operate at -100 for 10 rounds.	Major glitch. From the shock, the cyber-unit stutters for the next 20 rounds. All actions using this unit result in "Fail to Act."
66	Emergency shutdown. System shuts down for 1d10 rounds. Operate at -25 for 1d10 rounds.	System short. Unit operates at -25 until repaired. User takes +30 hits.	System failure. Cyber-unit shuts down with only a 15% chance of restarting.	System failure. Cyber-unit shuts down with only a 10% chance of restarting.	System failure. Cyber-unit shuts down with only a 5% chance of restarting.
67-70	Major glitch. The system stutters for 3 rounds. All actions using the system result in "Fail to Act."	System flaw. Due to the disturbance, the cyber-unit operates at -25 for 5 rounds.	Emergency shutdown. The shock has the unit shut off. It will automatically restart in 7 rounds.	Major flaw. The disturbance causes the system to operate at -125 for 10 minutes.	Major glitch. From the shock, the cyber-unit stutters for the next 20 minutes. All actions using this unit result in "Fail to Act."
71-80	System flaw. The shock temporarily lessens the cyber-unit's effectiveness. -20 for 4 rounds.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart after 3 rounds of inactivity.	Major flaw. Damage has caused the cyber-unit to operate at -50 for 5 rounds.	Emergency shutdown. The blow forces the cyber-system shut off. It will automatically restart after 10 rounds.	Major flaw. The unit to operates at -150 for 20 rounds and then resumes normal operation.
81-85	Emergency shutdown. Due to the shock, the cyber-unit turns off for 1 round and then automatically re-engages itself.	Major glitch. The system stutters for 6 rounds. All actions using this unit result in "Fail to Act."	Major glitch. Due to the disturbance, the system stutters for 10 rounds. All actions using this unit result in "Fail to Act."	System failure. The severity of the blow causes the cyber-unit to shut down. It only has a 20% chance of restarting.	Emergency shutdown. The blow forces the cyber-system shut off. It will automatically restart after 20 rounds of inactivity.
86-90	Major glitch. The effected system stutters for 5 rounds. All actions using this system result in "Fail to Act."	System short. the unit operates at -5 until repaired. The user takes +5 hits.	System short. Damage taken to the cyber-unit causes it to operate at -15 until repaired. The user takes +20 hits.	System short. The severity of the blow leaves the system operating at -20 until repaired. The user takes +30 hits.	System failure. The severity of the blow causes the cyber-unit to shut down. It only has a 15% chance of restarting.
91-95	System flaw. The shock temporarily lessens the cyber-unit's effectiveness. -25 for 5 rounds.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart after 10 rounds of inactivity.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart after 10 rounds of inactivity.	Emergency shutdown. Due to the shock, the effected system turns off. It will automatically restart after 20 rounds of inactivity.	System short. The severity of the blow leaves the system operating at -50 until repaired. The user takes +50 hits.
96-99	Emergency shutdown. Due to the shock, the cyber-unit turns off for 2 rounds and then automatically re-engages itself.	System short. The unit operates at -10 until repaired. The user takes +20 hits.	System failure. Due to the shock, the cyber-unit shuts down and only has a 20% chance of re-starting without the aid of technicians.	System failure. Due to the shock, the cyber-unit shuts down and only has a 20% chance of re-starting without the aid of technicians. Check every round. Until system is repaired, every time the system shuts down there is only a 15% chance of restarting it.	System failure. Due to the shock, the cyber-unit shuts down and only has a 10% chance of re-starting without the aid of technicians. Check every round. Until system is repaired, every time the system shuts down there is only a 10% chance of restarting it.
100	System short. Permanent damage has been sustained. The unit operates at -5 until repaired. The user takes +5 hits.	System failure. Due to the shock, the cyber-unit shuts down and only has a 20% chance of re-starting without the aid of technicians.	System short. Damage taken to the cyber-unit causes it to operate at -25 until repaired. The user takes +30 hits from the shock.	System short. The severity of the blow leaves the system operating at -30 until repaired. The user takes +45 hits.	System overload. All power sources are reverberated back upon themselves. External sources explode (use the Explosion Table) and natural sources cause a mental overload (delivering a +10 E Shock critical to the user). The cybernetic component is totally destroyed.

8.0

NEW STANDARD EQUIPMENT

8.1

COMBAT EQUIPMENT

Here is a compilation of combat-oriented equipment.

DOPPLEGANGER

The Doppleganger is an energy weapon which has two models, the pistol and the rifle. Each has three separate power settings and three different forms of attack. Setting #1 is the most powerful and attacks as a stunner (Mark 3 for the pistol and Mark 5 for the rifle). Power setting #2 attacks as a blaster (Mark 2 for the pistol and Mark 4 for the rifle). The third power setting on the weapon attacks as a disruptor (Mark 1 for the pistol and Mark 3 for the rifle). With the Doppleganger, the PC is able to decide just what sort of critical he would like to inflict on the enemy. The Doppleganger is a favorite among those characters who like a little variety. Although the actual hits drop with the higher settings, the critical results rise to a more devastating type. If actual concussion hits are important, the lowest setting should be used (it will only stun the foe).

INCARCERATION RIFLE

Commonly known as the "Bubble Gun," this large rifle is also called an "ungun." This bulky weapon loads with a clip holding six oversized shotgun shell-like projectiles. However, the shells contain a synthetic materials stronger than kevlar, with a high adhesive capability. Rather than firing a dangerous projectile, the Bubble Gun fires this adhesive. The material spreads as it flies (spreading even further upon impact. The bubble encapsulates its target, rendering him immobile. The bubble itself is porous to prevent the target's suffocation. For armor purposes, the bubble should be treated as a full kevlar body suit. The Bubble Gun attacks as a blaster using Grappling criticals.

This weapon is most commonly found in the possession of Law Enforcement Officers or security patrols. It has also been found useful by zoological researchers seeking unharmed specimens for study. It is obvious that this weapon has a variety of uses where injuries are to be avoided. It does not do concussion damage. Instead, the attack roll generates a penalty for all maneuvers attempted while coated with the bubble.

Example: a combat hit resulting in 15 hits of damage is used as a -15 to all attempted maneuvers.

Also, critical results cause maneuver penalties. An A critical gives a -10 penalty; a B critical gives a -20 penalty; etc.. Although criticals generate maneuver penalties, results for the criticals are still rolled and applied as usual.

TACHYON PARTICLE RIFLE (TPR)

This weapon only comes in a rifle model (because of its higher than normal energy requirements). It is powered by a small reactor built into the weapon. The weapon operates by collecting and concentrating tachyons into an energy. This energy is used to bombard targets; the extremely high energy levels disrupt the target's atomic level. It is possible to completely vaporize the target. The weapon attacks as a Mark 4 laser, but uses Plasma Criticals for the standard A-E criticals. If multiple criticals are generated, the second critical is determined on the Radiation Critical Chart.

Example: If the combat roll on the Laser Attack Chart resulted in a G critical (which translates into a type E Heat and a type B Puncture under laser conditions), it would do a type E Plasma critical and a type B Radiation critical.





The range of the TPR is shown below.

- Point Blank Range — 3 meters
- Short Range — 25 meters
- Medium Range — 65 meters
- Long Range — 175 meters

The TPR has a fumble rating of 9%. When a fumble occurs, resolve it on the Two-Handed Energy Weapon Fumble Table.

TIERING MODULE

This device is used with the skill TIERing, as a combat style (refer to the TIERing skill in Section 3.4 of *SpaMCo I*). The module is the actual "weapon" of the style. It consists of two pieces: the headpiece and the hand module. Both are connected by a fiberoptic cable. The headpiece reaches from one temple to the other (around the rear of the head) with an arm reaching over the center of the scalp. From the left side of the head piece, a microphone reaches to the corner of the mouth. The cable comes out of the rear of the headset, and runs to the hand module, which appears to be a small handgun of sorts.

The device operates by reading thought impulses and the vocal interpretation of these impulses. The vocal and thought portions are combined into a single form and transmitted to the hand module. The hand piece interprets this new signal into an energy mode for an attack and fires the energy. For details on the modes of attack, refer to TIERing in the skill section. The weapon fumbles on the standard 5% chance (it is more of a misuse of the skill than the weapon). If a fumble occurs, it should be resolved on

the One-Handed Energy Weapons Fumble Table. Note: Such headpieces may not be used simultaneously with other headset devices (e.g., Synchronizers, some artificial ears, Neural viewers).

TWELVE MILLIMETER ENFORCER

By far, the most powerful projectile handgun known to man, and is illegal to purchase except for certain law enforcement agencies. This weapon is also the most popular request among members of black market arms dealers. Its been known to bring down some Powered Armor and even small shuttle craft with a single shot. This gun fires a highly focused, amplified magnetic pulse which warps holes in energy shields (e.g., Barrier shields, Velocity shields, Deflector shields, Defensive shields of small vehicles) making the shield useless for defense against it. The shield would remain effective against other weapons, but the Enforcer ignores it altogether. Power Armor is treated as Armor Type 20 vs the Enforcer, with a +10 DB for each Armor Type above 21 (e.g., +10 for AT 22, +20 for AT 23, +30 for AT 24, but of course +0 for AT 21).

The Enforcer is a semiautomatic weapon with a magazine of 15 shots (including one in the chamber). Under normal conditions, the recoil of this weapon would make it prohibitive to use, but the weapon is specially designed. The firing chamber houses an absorption chamber which negates 99% of the kick. However, there is a delay in firing which results in the weapon only firing once per round.

RIPPERGUN

Ripperguns are illegal on most civilized planets. This is a rifle sized tri-barreled weapon that fires alternating beams of force (positive-negative-positive). The weapon alternately pushes and pulls its target with thousands of tons of force ripping it apart with potentially gruesome results. A slightly lower powered version of this device is often used for excavation of rock and or soil. Ripperguns are illegal on most civilized planets. Treat as a +25 Mark 4 and 5 Disrupter. Resolve all criticals on the Vacuum Critical Table (or, if *RMC V* is available, use the Vibration Critical Table).

MASS GUN

This two-handed energy weapon causes a target's molecular structure to compress into itself. The result is that the target becomes so heavy that it can not support itself. The effects of this weapon are adjustable from 2 to 5 times density increase. Treat this weapon as a stun rifle, using the Vacuum Critical Table.

MOLECULAR COHESION DISRUPTOR (MCD)

The MCD is a military weapon and is restricted in most areas. This weapon attempts to break the molecular bonds of its target. It is set for a specific molecular type, (e.g., stone, flesh, steel, etc.). It is very effective in hostage situations where the authorities will often set the device on the frequency of the materials the criminals weapons are made of, rendering the villains un-armed. When used on a person, the ef-

fects can be messy (i.e., squishy puddle). The draw backs are this, the weapon is heavy, its power source is in a 40 kg backpack. The MCD is capable of only 10 bursts before a recharge is needed. It produces a very distinct energy pattern, making it very visible to smart weapons. Treat as a plas-matic repeater. All criticals are resolved on the Disintegration Critical Table.

NEURAL DISRUPTORS

Neural Disruptors (N-Disruptors) use the same attack delivery principle as stunners; but at the frequencies these vicious weapons employ, they damage the target's neurological system. Unlike stunners and standard disruptors, they make a slight buzzing noise when discharged. N-Disruptors emit no visible beam, and have no recoil. They attack on the Disruptor Attack Table, but deliver Neuro Criticals. N-Disruptors cost the same as standard disruptors.

Mini N-Disruptor (*): Fires once per round on the Disruptor Attack Table (Mark 1). Power supply is either a Utility Cell or a Weapon Cell.

N-Disruptor Pistol (*): Fires up to twice per round on the Disruptor Attack Table (Mark 2). Power supply is a Weapon Cell.

Assault N-Disruptor (†): Fires up to twice per round on the Disruptor Attack Table (Mark 3). Power supply is a Weapon Cartridge.

N-Disruptor Rifle (†): Fires up to twice per round on the Disruptor Attack Table (Mark 4). Power supply is a Weapon Cartridge.

Heavy N-Disruptor (†): Fires up to twice per round on the Disruptor Attack Table (Mark 5). Power supply is a Weapon Pack.

CHARGE PACKET GUN (CPG)

This restricted weapon fires small, highly ionized plasma charges. The target is shrouded in a brilliant, coruscating pattern of electrical charges. The CPG is loud, making a distinctive crackling sound. Although the CPG has an excellent range (comparable to laser weapons), is extremely reliable, and does a devastating amount of damage; its effectiveness is restricted against heavy armor types. It suffers a -10 modifier versus ATs 9-12; -25 vs. ATs 13-16; -40 vs. ATs 17-20. The CPG is seldom found in the hands of military or law-enforcement tactical personnel.

Mini CPG (*): Fires once per round on the Blaster Attack Table (Mark 1). Power supply is a Weapon Cell.

CPG Pistol (*): Fires up to twice per round on the Blaster Attack Table (Mark 2). Power supply is a Weapon Cell.

Assault CPG (†): Fires up to twice per round on the Blaster Attack Table (Mark 3). Power supply is a Weapon Cartridge.

CPG Rifle (†): Fires up to twice per round on the Blaster Attack Table (Mark 4). Power supply is a Weapon Cartridge.

Heavy CPG (‡): Fires up to twice per round on the Blaster Attack Table (Mark 5). Power supply is a Weapon Pack.

MASERS

The output of maser weapons is a stream of cohesive microwave radiation. Unlike lasers, which usually have their output confined to the visible section of the electromagnetic spectrum, masers tend to 'cook' their targets—a rather gruesome effect which has caused these weapons to be highly restricted in some cultures. Maser barrels are not quite as long and unwieldy as those of comparable laser weapons, and have correspondingly lesser rates of failure. Also, the effectiveness of a maser is not inhibited by anti-laser aerosols or smoke. Their discharge is both silent and invisible. They attack on the Laser Attack Table, but deliver Microwave (primary) and Heat (secondary) criticals. Maser weapons cost twice as much as lasers.

Mini Maser (*): Fires once per round on the Laser Attack Table (Mark 1). Power supply is either a Utility Cell or a Weapon Cell.

Maser Pistol (*): Fires up to twice per round on the Laser Attack Table (Mark 2). Power supply is a Weapon Cell.

Assault Maser (†): Fires up to twice per round on the Laser Attack Table (Mark 3). Power supply is a Weapon Cartridge.

Maser Rifle (†): Fires up to twice per round on the Laser Attack Table (Mark 4). Power supply is a Weapon Cartridge.

Heavy Maser (‡): Fires up to twice per round on the Laser Attack Table (Mark 5). Power supply is a Weapon Pack.

E-R LASERS

An invention of the Idorians, Enhanced-Radiation (E-R) Lasers are sometimes known colloquially as "X-Ray" or "Radium" Lasers. Their output, like conventional lasers and masers, is a stream of highly cohesive electromagnetic radiation, but instead of discharging in the visible light or microwave spectrum, they deliver a highly lethal burst of aligned gamma or X-ray radiation. E-R la-

sers produce a corona of beautiful, rainbow-colored light when they discharge. They attack on the Laser Attack Table using Heat criticals. They also deliver an additional Radiation critical of one less severity. These weapons are outlawed everywhere. Possession of one produces the most extreme penalties from law enforcement agencies, although it is rumored that at least one division of Imperial shock troopers are equipped with these brutal weapons. E-R lasers cost four times as much as lasers.

Mini E-R Laser (*): Fires once per round on the Laser Attack Table (Mark 1).

E-R Laser Pistol (*): Fires up to twice per round on the Laser Attack Table (Mark 2). Power supply is a Weapon Cell.

Assault E-R Laser (†): Fires up to twice per round on the Laser Attack Table (Mark 3). Power supply is a Weapon Cartridge.

E-R Laser Rifle (†): Fires up to twice per round on the Laser Attack Table (Mark 4). Power supply is a Weapon Cartridge.

Heavy E-R Laser (‡): Fires up to twice per round on the Laser Attack Table (Mark 5). Power supply is a Weapon Pack.

CRYOGUNS

Cryoguns are a variant of flamers, which propel a stream of liquid nitrogen. Unlike flamers, cryoguns are not difficult to extinguish and do not require oxygen, so they are equally effective in vacuum or oxygen-low atmospheres. They are, however, subject to a high breakdown rate due to the effect of the extreme cold on the firing mechanisms. Cryoguns attack on the Flamer Attack Table, but deliver Cold criticals. Cryoguns cost the same as flamers.

Mini Cryogun (*): Fires once per round on the Flamer Attack Table (Mark 1). Power supply is a Cryo Cell.

Cryogun Pistol (*): Fires up to twice per round on the Flamer Attack Table (Mark 2). Power supply is a Cryo Cell.

Assault Cryogun (†): Fires up to twice per round on the Flamer Attack Table (Mark 3). Power supply is a Cryo Cartridge.

Cryogun Rifle (†): Fires up to twice per round on the Flamer Attack Table (Mark 4). Power supply is a Cryo Cartridge.

Heavy Cryogun (‡): Fires up to twice per round on the Flamer Attack Table (Mark 5). Power supply is a Cryo Pack.

TECH WEAPONS CHART

Name	Type	Rate	F	Range (meters)				Range (modifiers)				Table Used	Shots	Power & Notes
				PB	SR	MR	LR	PB	SR	MR	LR			
Doppleganger (p)	1H En	2/rnd	5	v	v	v	v	+15	+0	-30	-90	Varies	1	Weapon cartridge
Doppleganger (r)	2H En	2/rnd	6	v	v	v	v	+15	+0	-30	-90	Varies	1	Weapon pack
Incarceration Rifle	2H Proj	1/rnd	5	2	10	40	70	+15	+0	-30	-90	Blaster Mk 5	6	Mag, Grapple Crits
Tachyon Part. Rifle	2H En	1/rnd	7	3	25	65	175	+15	+0	-30	-90	Laser Mk 4	1	Microfusion reactor
TIERing Module	1H En	2/rnd	5	v	v	v	v	+15	+0	-30	-90	Varies	1	Weapon cell
12mm Enforcer	1H Proj	1/rnd	3	3	25	60	120	+15	+0	-30	-90	Proj. Mk 5	15	Mag
Rippergun	2H En	2/rnd	5	3	15	30	200	+15	+0	-30	-90	Disr. Mk 4/5	1	Weapon cartridge
Mass Gun	2H En	2/rnd	5	3	15	30	200	+15	+0	-30	-90	Stunner Mk 4	1	Weapon pack, Vacuum crits
Mol. Coh. Disruptor	2H En	2 burst	9	3	20	40	100	+15	+0	-30	-90	Blaster Mk 5	1	Micro reactor. Disint. crits

Charge Packet Gun

Mini CPG	1H En	1/rnd	4	1	5	10	15	+15	+0	-30	-90	Blaster Mk 1	1	Weapon cell
CPG Pistol	1H En	2/rnd	4	3	20	50	200	+15	+0	-30	-90	Blaster Mk 2	1	Weapon cell
Assault CPG	2H En	2/rnd	4	3	25	75	300	+15	+0	-30	-90	Blaster Mk 3	1	Weapon cartridge
CPG Rifle	2H En	2/rnd	4	3	30	100	400	+15	+0	-30	-90	Blaster Mk 4	1	Weapon cartridge
Heavy CPG	Sup En	2/rnd	4	5	100	500	2000	+15	+0	-30	-90	Blaster Mk 5	1	Weapon pack

Masers

Mini Maser	1H En	1/rnd	4	1	5	10	15	+15	+0	-30	-90	Laser Mk 1	1	Weapon/Utility cell
Maser Pistol	1H En	2/rnd	4	3	20	50	200	+15	+0	-30	-90	Laser Mk 2	1	Weapon cell
Assault Maser	2H En	2/rnd	4	3	25	75	300	+15	+0	-30	-90	Laser Mk 3	1	Weapon cartridge
Maser Rifle	2H En	2/rnd	4	3	30	100	400	+15	+0	-30	-90	Laser Mk 4	1	Weapon cartridge
Heavy Maser	Sup En	2/rnd	4	5	100	500	2000	+15	+0	-30	-90	Laser Mk 5	1	Weapon pack

E-R Lasers

Mini E-R Laser	1H En	1/rnd	5	1	5	10	15	+15	+0	-30	-90	Laser Mk 1	1	Weapon/Utility cell
E-R Laser Pistol	1H En	2/rnd	5	3	20	50	200	+15	+0	-30	-90	Laser Mk 2	1	Weapon cell
Assault E-R Laser	2H En	2/rnd	5	3	25	75	300	+15	+0	-30	-90	Laser Mk 3	1	Weapon cartridge
E-R Laser Rifle	2H En	2/rnd	5	3	30	100	400	+15	+0	-30	-90	Laser Mk 4	1	Weapon cartridge
Heavy E-R Laser	Sup En	2/rnd	5	5	100	500	2000	+15	+0	-30	-90	Laser Mk 5	1	Weapon pack

Cryoguns

Mini Cryogun	1H En	1/rnd	5	1	2	3	5	+15	+0	-30	-90	Flamer Mk 1	1	Cryo cell
Cryogun Pistol	1H En	2/rnd	5	2	5	10	15	+15	+0	-30	-90	Flamer Mk 2	1	Cryo cell
Assault Cryogun	2H En	2/rnd	5	3	10	20	30	+15	+0	-30	-90	Flamer Mk 3	1	Cryo cartridge
Cryogun Rifle	2H En	2/rnd	5	4	20	40	60	+15	+0	-30	-90	Flamer Mk 4	1	Cryo cartridge
Heavy Cryogun	Sup En	2/rnd	5	5	40	80	120	+15	+0	-30	-90	Flamer Mk 5	1	Cryo pack

MELEE WEAPONS CHART

Name	Type	F	Melee		Range (meters)				Range (modifiers)				Enc. Modifier	Notes
			Mark #	Crit.	PB	SR	MR	LR	PB	SR	MR	LR		
Arc Welder	1H En	8	5	Electricity	1	-	-	-	0	0	0	0	-0	
Blow Torch	1H En	4	2	Burn	1	-	-	-	0	0	0	0	-0	As Flame Pistol
Chainsaw large	2H Edged	10	5	Power Saw	2	-	-	-	0	0	0	0	-30	
Chainsaw medium	2H edged	8	4	Power Saw	1.5	-	-	-	0	0	0	0	-20	
Chainsaw small	1H edged	6	3	Power Saw	1	-	-	-	0	0	0	0	-15	
Circular Saw	1H edged	7	2	Power Saw	1	-	-	-	0	0	0	0	-15	
Jigsaw/Sabresaw	1H edged	5	2	Power Saw	1	-	-	-	0	0	0	0	-10	
Nailgun	1H proj	3	1	Puncture	2	5	8	12	+10	+0	-30	-100	-0	As Small Projectile
Power Drill	1H edged	3	1	Puncture	1	-	-	-	0	0	0	0	-0	As Small Projectile
Staple Gun	1H proj	3	1	Puncture	1	4	7	10	+5	0	-40	-100	-0	As Small Projectile

Note: The encumbrance modifier is a penalty for using this weapon in combat because it is not designed for combat use.

MAGNETIC PULSE GRENADE (MPG)

Completely harmless to PCs under normal conditions, this is perhaps the most devastating device possible when used to disrupt electronic equipment. Known to stop vehicles dead in their tracks and drop androids like flies in a cloud of pesticide, the MPG has gained a reputation worthy of its capability. It works by radiating a highly amplified magnetic pulse which scrambles all electronic equipment within its radius (rendering them useless until repaired). After one has "Pulsed," all electronic equipment goes dead, small objects jump toward the pulse (sometimes a full meter), and metallic objects at the center of the pulse may become magnetized to a high degree. Androids receive an RR vs the Mark of the grenade (with modifiers shown). If the RR is failed, the android shuts down. This is a condition resembling death, but the android can be like new after repairs and reprogramming. Repairs typically consist of correcting all polarized pieces and replacing magnetized components (this can get quite costly). In a similar manner, vehicles are known to stop in their tracks after all of their electronic components are scrambled. Even worse, character's with neural implants (e.g., Neural translator, Neural substitute) drop to ground and go into uncontrollable convulsions if their RR is failed.

The grenades vary in power, ranging from Mark 6 to Mark 10. The area of effect of each Mark is determined by multiplying the Mark by 20. The result is the number of meters in the area of effect (e.g., a Mark 6 grenade has a radius of 60 meters). The RR modifier varies based on the distance from the center of the radius of effect. Blast center is the area which falls within the first ten meter radius around the grenade. The maximum RR penalty is derived by multiplying the Mark of the grenade by 10 (e.g., a Mark 6 grenade would have an RR modifier off -60 for a target within the blast center). For each additional 10 meters beyond the blast center, the RR penalty is reduced by 10, until a modifier of -0 is obtained. Beyond that area, the modifier is increased by 10 for every ten meters.

Example: A Mark 6 grenade has a RR modifier of -60 at blast center (1-10m), at 11-20m the modifier is -50, 21-30 = -40, 31-40 = -30, 41-50 = -20, 51-60 = -10, 61-70 = -0, 71-80 = +10, etc

The Mark of the MPG will be used as the level being resisted. All electronic devices are treated as first level for RRs. Weapons are treated as the level corresponding with their Mark rating. Androids may use their experience level for their RR. For those vehicles listed in SB TB, five times the Power rating is used for the level of resistance. If the vehicle is from *Armored Assault*, the Power rating is divided by 2, and the result is used as the level of the vehicle. All vehicles receive an RR bonus equal to their level times 5.

AEROSOL GRENADES

Aerosol grenades are used to deliver a variety of biological or chemical agents. Most of these are resisted using the CO bonus as the modifier. The targets must resist each round they are in the area of the effect. Most grenades will only affect a small radius during the first round that they're used, and will expand out to the full range of effect in the second round. Others use a burst effect to fully affect their entire area of effect in a single round, but only last one round.

The aerosol grenade is treated as an anti-laser aerosol grenade, except that the duration is not as long. The standard level of attack is equal to the Mark number of the grenade plus 5. Each blast radius out will lower the level of attack by one.

Example: A standard Mark five aerosol grenade is going to cover a twenty meter radius; at ground zero it will be treated as level ten for resistance purposes, at the last radius out it will be treated as level six, and it will last about five minutes).

Standard duration for the grenades is 1 minute for the point defense types, 5 minutes for the standard type, and 10 minutes for the enhanced type of aerosol grenade.

The aerosol will start losing one level of attack each round after the end of the normal duration. This assumes that the atmosphere is undisturbed. Either rain or strong winds can speed the dispersal of the aerosol.

Example: In the above case, after five minutes the aerosol will lose one level of attack each round so that ten rounds after that there will be no trace of the aerosol left).

Each grenade type (listed below) will list a variety of effects. This includes minimum effect (what will always happen to any one within the area of effect), base effect (what happens if the aerosol is not resisted against), and a maximum effect (what happens if the resistance roll is failed by more than 25).

Nerve Aerosol (NA): Nerve Aerosol (NA) grenades are deadly. Minimum effect has the target acting at -90. Base effect has the target resisting at -50 or die in 1d10 rounds. Maximum effect has the target die instantly. The standard Nerve Aerosol would be Skin Absorbed (SA) and With Antidote, or SAWANA. Options include aerosols that wouldn't affect the target till a later time; aerosols that would contaminate the target area and be deadly weeks or years later. Finally, some aerosols would be biological in nature, and infect the target with a deadly disease.

Tear Aerosol (TA): Tear Aerosol (TA) grenades also act as smoke grenades in the area of effect and will have a minimum effect of -10 to all rolls. The base effect is -25 to all rolls. In addition, the target must make a second RR using his SD as the modifier. If he fails, he will be forced move out of the gassed area as soon as possible. If unable to move out, the target suffers -100 to all actions to takes 1d10 damage per round. If maximum effect is achieved, the target is at only able to try move out of the area and will be stunned for 1d10 rounds after leaving the area of effect.

Vomit Aerosol (VA): Vomit Aerosol (VA) grenades also act as smoke grenades in the area of effect (see above for minimum effect). The base effect is -25 to all rolls. In addition, the target must make a second RR using his SD modifier or be stunned and unable to parry for as long as he is in the area of effect and for 1d10 rounds afterwards, taking 1d10 hits per round. Maximum effect causes the target to fall down and take 5d10 damage.

Vomit and Tear Aerosol (VTA): Vomit and Tear Aerosol (VTA) grenades combine the effects of both. They cost double and attack at two levels less in power.

Sleep (SA): Sleep (SA) grenades often use a clear colorless aerosol. They have no minimum effect, but base effect is target falls asleep for ten minutes per 5% failure. Maximum effect is that the target falls asleep for 1d10 hours and can not be awakened by normal means. There are a variety of sleep aerosols with shorter and longer duration. The With Antidote Sleep Aerosol (WASA) grenade is often used because it comes with its own antidote tabs. They come in standard duration or Burst Round grenades.

Paralysis (PA) grenades are also a common aerosol. Some Paralysis agents have no duration and lead to death if the antidote is not given within an hour of exposure (if the target fails to resist). They have no minimum effect, but base effect is target paralyzed for

ten minutes per 5% failure of the roll. Target is aware, but unable to move his body or even speak. As with Sleep grenades, there are a variety of aerosols with shorter and longer duration. They come in standard duration or Burst Round grenades.

Stun Aerosol (SAT) grenades: each round the target must resist the aerosol or receive an 'A' stun critical. They come in standard duration or Burst Round grenades.

FLASH GRENADES

Flash (F) grenades cause all targets in the area of effect to resist versus the attack level of the grenade or be blinded one round for every 10% failure. Blinded means -95 for ranged OB, melee OB, and sight perception. If a hearing perception roll is made, the melee OB penalty is only -50. In broad daylight, Flash Grenades are resisted at +25 and any blindness will only last a maximum of one round. Vision enhancement equipment is very susceptible to this form of attack (-25) but most advance military vision enhancement equipment will have flash suppressors (+0 to +50 to the resistance roll instead) which can depending on the level of the suppressors practically make the wearer immune to the flash. Level of the attack and

blast radius are as per the Aerosol grenades. Standard price and mass is 8/Mark and .1k/Mark

Flash Bang (FB) grenades cause all targets in the area of effect to resist not only as a flash grenade but will also stun per 20% failure and deafen the target for one round per 05% failure. Standard price and mass is .16/Mark and .2k/Mark

INCENDIARY GRENADES

Incendiary grenades are designed to catch things on fire. Incendiary grenades come in two types: the standard Incendiary and the Melt Down grenade. Standard Incendiary grenades actually continue to burn after they explode. The Melt Down grenade does exactly that.

Incendiary (I) grenades will act as a normal general purpose grenade except Shrapnel and Heat critical are taken instead. All targets take an additional Heat critical of one severity less each round following until after the 'A' critical is reached. i.e. if a crit is taken, then a 'B' will follow the second round, and an 'A' the third. This will also tend to ignite all flammables in the area. Standard price and mass is .20/Mark and .1k/Mark

Melt Down (MD) grenades are the second type of incendiary grenade. They are usually used to destroy equipment. The Melt Down grenade only has a ground zero radius (first radius), and no other. This will last one plus the Mark number of the grenade in rounds. They usually include a strong contact adhesive to attach them to the target. Standard price and mass is 8/Mark and .2k/Mark

SONIC GRENADES

Sonic (S) grenades use ultrasonic frequencies to affect their targets. Sometimes a high-pitched scream is heard, but usually the only thing visible is the shattering glass at ground zero. Sonic grenades are very popular because they are unaffected by weather conditions and are much more controllable than aerosol grenades. Anyone picking up a Sonic grenade takes an 'A' vibration crit each round that he continues to hold it.

They are treated as aerosol grenades, except that ear protection provides some minor protection, and the SD modifier is used on the resistance roll. The level of attack to be resisted is, as with aerosol grenades, equal to five plus the Mark number of the grenade. The size of the blast radii and the level of the attack are also the same as aerosol grenades. Unlike aerosol grenades, they are unaffected by weather conditions, and the effects from the grenade will immediately stop in the area of effect if the grenade is removed, remotely turned off, or destroyed. Ear plugs offer +10 to the resistance roll. Sealed environment suits will add +25 to the resistance roll normally, or +50 if the external audio pickups are off. Both the Deflector and the Barrier shield provide +20 to the resistance roll, while the absorption Shield offers +10 to the roll. They require an atmosphere to work. Very thin atmospheres will reduce the area of effect, while very thick atmosphere will increase the area of effect.

Sonic Screamer (SS) grenades act as finger nails on a chalk board. They cause all targets in the area of effect to resist each round or run away due to pain and the sonic induced fear. Minimum effect is -10 to OB and maneuver rolls. Base effect is if the target fails to resist, he must leave the area of effect, but he may take other actions while leaving. The maximum effect is the target can only move out of the area, and this effect will end 1d10 rounds after leaving. They cost twice as much as aerosol grenades 32/Mark

Sonic Stun (STS) grenades cause all targets in the area of the effect to resist or take a 'A' stun critical. They cost twice as much as aerosol grenades 32/Mark



GRENADE CHART

Grenade Type	Blast Radii (m/Mark#) PD	Applicable Standard	Enhanced	Critical Type	Shield Mod
Flash (F)	1	2	3		
Flash Bang (FB)	1	2	3		
Incendiary (I)	1	2	3 (e)	Shrapnel/Heat	Projectile
Melt Down (MD)	1	2	3 (f)	Plasma	Energy
Paralysis (PA)	1(a)	2 (b)	3 (c)		
Sleep Aerosol (SA)	1(a)	2 (b)	3 (c)		
Sonic Screamer (SS)	1(a)	2 (b)	3 (c)	— (d)	
Sonic Stun (STS)	1(a)	2 (b)	3 (c)	Stun	— (d)
Stun Aerosol (STA)	1(a)	2 (b)	3 (c)	Stun	
Tangle (T)	1	2	3	Entangle/Envelope	Projectile
Tear Aerosol (TA)	1(a)	2 (b)	3 (c)		
Vomit & Tear (VTA)	1(a)	2 (b)	3 (c)		
Vomit Aerosol (VA)	1(a)	2 (b)	3 (c)		

Notes:

a = Effect normally lasts for 1 minute.

b = Effect normally lasts for 5 minutes.

c = Effect normally lasts for 10 minutes.

d = +20 RR for Deflector and Barrier shield. +10 RR for Absorption shield.

e = additional Heat of one Level severity less each round following.

f = Only has first blast radius, but effect continues for 1+ Mark# of grenade in rounds.

GRENADE OPTIONS CHART

Options	Effect	Range	Price	Mass
Aerodynamic (AD)	disked shape throwing grenades	x1.5	—	—
Burst Round (BR)	Single round of effect & no trace effects	—	x.5	x.5
Delayed Effect (DE)	delayed effect after released	—	x2	—
Extended Duration (DE)	doubles duration	x2	+1 Mark	—
Extended Effect (EE)	effects last after aerosol dissipates	—	x5	—
Limpet (L)	adhesive surface	—	5	—
Low-tech (LT)	possible x2 failure range	—	x.5	x1.5
Microgrenades (MC)	very small PD Mark 0 grenades	x.5	Mark2	.02k
Minigrenades (MN)	Small PD grenade	—	+1 Mark	.1k
Skin Absorbed (SA)	requires sealed environment protection	—	x3	—
Smart (SM) grenades	T,C,P,DAP, and DAR	—	+2 Mark	—
Super Undetectable (SU)	-100 to scanner attempts	—	x5	—
Undetectable (U)	-50 to scanner attempts	—	x2	—
With Antidote (WA)	comes with immunity tabs	—	+1 Mark	—

TANGLE GRENADES

Tangle (T) grenades attack by exploding into a mass of tough sticky fibrous strands which envelope everything in the area of effect. The attack is resolved on the Entangle/Envelope Attack Table using the Grenade/Explosive Warhead Attack Table modifiers. They have a much smaller area of effect than normal grenades. They have one meter blast radii, and each grenade has one blast radius per Mark number (i.e., a Mark 3 will have a first, second, and third blast radius). The fibers remain sticky for one round per Mark number, so anyone moving or struggling

in the area of effect while the fibers are still sticky will be attacked on the Entangle/Envelope Attack Table. This will be a straight dice roll with no modifications (except the defenses of the target), unless the GM gives special modifier (i.e., the character was slammed down or falls face first into it). The fibers will dry up and turn to dust in about one hour, or a special aerosol solvent can be used to remove them (which can be purchased with the Tangle grenades for only a small additional charge (treat as With Antidote for price)).

GRENADE OPTIONS

Aerodynamic (AD) grenades can be thrown half as far again as a non-aerodynamic grenade in a standard atmosphere (however, if the target is missed by the attack, double the distance the grenade missed by). They cost and weigh the same as a regular grenade.

Burst Round (BR) grenades effect their target for only a single round. They leave no trace effects in the target area after the first round. They only cost and mass half as much.

Delayed Effect (DE) grenades don't affect the target until after a preset time period. The preset time period is usually anywhere from five minutes to a week and is set into the grenade at the time of manufacture. It can't normally be changed. They are often biological in nature, and this is especially true of the long-delay grenades. The price is doubled.

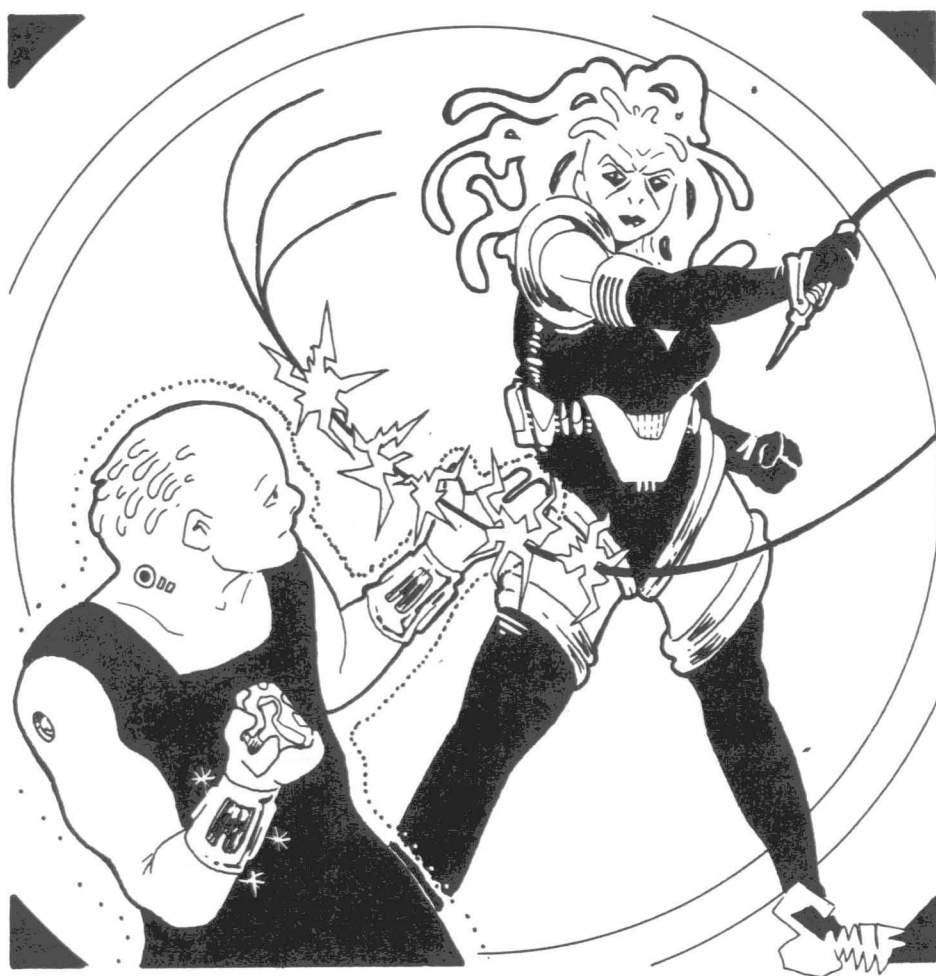
Extended Duration (ED) grenades have double the normal duration and price. This option can be bought more than once, and each time it is bought will cause the grenade to be treated as if it was one Mark number higher for mass purposes.

Extended Effect (EE) aerosol grenades continue to have an effect after the aerosol dissipates. The aerosol is also Skin Absorbed (SA) and remains as an invisible coating in the area of effect. Weeks and months later, anyone unprotected who touches the area can still be affected. The most common Extended Effect grenade is the Nerve Aerosol grenade. The price is five times normal.

Limpet (L) grenades come with an adhesive surface for easy attachment. This option only costs an extra 5 elmonits. They can be set to explode if removed for double cost (10 elmonits).

Low-tech (LT) grenades are more simply made versions of the Imperial military grenade. They are found in the lower tech areas of the Imperium and anywhere someone decides to cut corners (like the black Market). They are usually half the price of normal grenades, and limited to fairly simple arming and detonation methods (i.e. no proximity, DAP, or DAR). They also often have double the failure range (depending on how high the Mark number and the complexity of the grenade) and usually are at least 1.5 the mass.

Micro-grenades (MC) are Point Defense Mark Zero grenades that only weigh .02 Kilos (i.e., there are no pluses to the attack roll except for the ground zero modifier). Micro-grenades have only the first three blast radii, and each blast radius extends outwards only one meter (the standard micro-grenade explosion is only about 6 meters across). They often come in pull strings of five that allow all five to be armed and thrown in one round. Micro grenades can be thrown half as far as a regular grenade, so half all range mods. They can come in all standard types except Plasma. Aerosol and sonic microgrenades only last for one-fourth as long as the normal grenade type due to their small size. They cost as much as a Mark two grenade and mass .02k



Minigrenades (MN) are Point Defense grenades that only weigh .01k no matter what the Mark number is. Their cost is figured as if they were one Mark higher.

Skin Absorbed (SA) grenades require a fully sealed environment suit for protection. Filter masks provide no protection. They cost three times as much as the standard aerosol grenade.

Smart (SM) grenades can be set to arm and detonate in any of the standard methods in only a turn or two. They have a small micro-processor and scanner that allows them to be set to detonate if any of a variety of different conditions occur. They can also be pre-set to up to three different instant arming and detonating methods of the user's choice in advance. They usually include a strong contact adhesive to attach them to the target. Their cost is figured as if they were two Marks higher.

Super Undetectable (SU) grenades are -100 to be detected by scanners, as explosives, until armed, and then at -50. There are no power sources or electronics involved. They are limited to contact, delayed action, and fused detonation because of this. They cost five times as much as a regular grenade of the same Mark level.

Undetectable (U) grenades are -50 to be detected by scanners as explosives, until armed. They are inert until the two compounds are mixed, and the arming and detonation are usually also chemical in nature. The arming and detonation fuse power sources and electronics (if any) are also at -25 to be detected by scanners due to shielding. They can have all standard arming and detonating methods if desired. They cost twice as much as a regular grenade of the same Mark level.

With Antidote (WA) grenades come with tabs which provide complete immunity to their brand of aerosol. The immunity granted doesn't affect the smoke effect (if any), and is only for their brand of aerosol. The tabs can also be applied after the fact. Each grenade comes with a pack of ten tabs. The price is one Mark number higher than the standard grenade.

MOLECULAR CHAIN

Developed by Drs. Linda and Michael Sinclair of Imperial Transtar, Sinclair Molecular Chain (SMC) is a strand of bio-engineered polymer molecules in a single line. SMC is capable of cutting through anything, given enough time to overcome the innate resistance of the substance cut. Ordinary metals, inorganic, and organic substances part with almost no resistance. Various CAT materials (such as Crystanium and Ordium) can be cut with a few seconds of pressure. SMC conducts no electrical current, and is practically unbreakable. Packaged in varying lengths with small rings or studs on the ends, SMC is not available to the general public. Although SMC is extremely dangerous and difficult to handle it has become a favorite tool of Imperial Intelligence and Security operatives. It is extremely expensive to make, and is not issued as standard equipment. Rumor has it that research is being done to turn SMC into a melee weapon by encasing a strand of it in a stasis field, generated in a small grip so the chain can be wielded like a sword. SMC is very closely monitored by the Empire. Sinclair Molecular Chain costs 1,000 elmonits per centimeter.

LIQUID CRYSTAL HELMET

A combat helmet for all occasions. This helmet may be specially designed to fit onto any exoskeleton, or to replace the helmet of any environmental suit, as well as a standard protective helm. The helmet has a variety of sensory modes including thermal radiation, infrared, motions detectors, and sound orientation. The information obtained from these modes is used in conjunction with the LCD screen to provide the wearer with the information in his visual field. One standard use is outlining a potential target and tracking it as it moves across the field of vision. During such a use, if the target becomes obscured from line of sight, the helmet cannot continue exact tracking, but can predict movement based on speed and direction before vanishing.

Example: *if the helmet is tracking a man across an outside garden, the wearer would see the figure distinctly colored, with direction, distance, velocity, and current acceleration or deceleration, all displayed beside the target. If the man were to walk behind a wall, the helmet could not continue to track him accurately. However, based on the figure's velocity, the helmet could predict the man's location behind the wall and display the coloration at that point in the field of vision. If the man maintains the same speed and direction, the coloration will*

show his exact position, effectively tracking him until he comes out from behind the other end of the wall. However, if someone else was behind the wall, LCD Helmet would not be able to target or track him.

In addition to the tracking capability, the helmet is able to magnify an area of the visual field by as much as 100x, aid in weapons fire and audio surveillance, and amplify the wearer's voice. When magnifying an area, the LCD screen uses high resolution computer graphics to display the area in question. With a separate attachment, which is attached to the wearer's weapon, the helm will display the exact line of fire on which the weapon is aimed. This will result in an additional +25 for combat with that weapon. However, these devices are easily misaligned. The helmet also has a high sensitivity microphone built in it which can clearly hear a whisper at 500 feet (as long as there are no other distracting or masking sounds). The helmet is also capable of acting as a bull horn. In a given combat, for each use beyond the first, the +25 modifier is lowered by -5.

DISRUPTOR SHIELD NET (DSN)

Developed by VegaPol for the protection of various anti-terrorist and special operations units, the Disruptor Shield Net is a bodysuit made of an openwork net of fine wires, connected to a belt-mounted power source. The net impedes the impulses created by disruptor weapons, reducing both the hits they deliver and the severity of any criticals inflicted. The DSN is unencumbering and provides no armor or defensive bonus. It can be used in conjunction with standard absorption, velocity, and deflector shields. Two separate versions of the DSN exist, one effective against normal disruptors; the other effective only against neural disruptors. Power consumption is comparable to a deflector shield. The DSN is the exclusive property of VegaPol and the various law enforcement branches of the Galactic Court of Humanity.

Disruptor Shield Net Mark1 (*): Reduces Disruption or Neuro Criticals by one level of severity, and reduces Disruptor or N-Disruptor induced concussion hits by 20%. Power supply is either a Utility Cell or a Weapon Cell.

Disruptor Shield Net Mark2 (*): Reduces Disruption or Neuro Criticals by two levels of severity, and reduces Disruptor or N-Disruptor induced concussion hits by 40%. Power supply is a Weapon Cell.

Disruptor Shield Net Mark3 (†): Reduces Disruption or Neuro Criticals by three levels of severity, and reduces Disruptor or N-Disruptor induced concussion hits by 60%. Power supply is a Weapon Cartridge.

Disruptor Shield Net Mark4 (†): Reduces Disruption or Neuro Criticals by four levels of severity, and reduces Disruptor or N-Disruptor induced concussion hits by 80%. Power supply is a Weapon Cartridge.

Disruptor Shield Net Mark5 (‡): Reduces Disruption or Neuro Criticals by five levels of severity, and reduces Disruptor or N-Disruptor induced concussion hits by 100%. Power supply is a Weapon Pack.

BIOMECHANICAL ARMOR

This armor starts as a 1 cm thick bluish black oval, 1 meter in diameter. The user stands naked on it to activate it. The material flows up and around the user's naked body. It covers the entire body, up to the face where a special ring prevents total coverage. The suit is 1 cm thick all about the body, and is completely flexible. The user's St and Qu are increased by +20. The suit acts as AT 20 with an innate DB of +50. Temperatures of -100 to +200 degrees Celsius can be withstood. In combat, if the armor is breached, it will re-seal over the wound. Built into the armor is a tissue knitter that closes all wounds (stopping all bleeders at a rate of 1 hit per round). Special forms of Biomechanical Armor mimics the colors and textures of its surroundings.

POLICE WEB

A highly effective prisoner restraint system. While all forms of cuffs and conventional restraints allow some motion, when used in conjunction with a Police Web, their effectiveness increases tenfold. The device looks like a stylized black cloth web seven feet across. When powered on, the web produces a local increase in gravity. The gravity of the web can be increased in 0.5G increments to a maximum of 9 Gs. Simply placing an otherwise restrained prisoner on the web and turning it on significantly reduces his escape chances. The web requires a microfusion reactor for power, but can also be plugged into most vehicle reactors.

SYNCHRONIZED HOLSTER

Designed to enhance one's drawing technique. This requires of a specially engineered holster, glove, and weapon grip. Each is linked together by a computer link, to provide exceptional balance of an attraction similar to low power tractor beams. All three pieces must be operational, and worn, to function. When used, they provide a +15 bonus for all Adrenal Moves: Quick Draw and similar maneuvers involving that weapon. The only important thing to realize is that the Synchronized Holster must be specially designed for each weapon and is only available for handguns.

MAGNETIC WEAPON LOCKS

Magnetic Weapon Locks can be installed on any projectile or energy weapons (including power swords and force knives). The lock system will disable and jam the trigger/activation mechanism unless the proper magnetic "key" (usually a ring) is worn and held close to the trigger/activation mechanism. This essentially renders the weapon unusable by anyone other than the owner. Magnetic weapon locks cost 250 elmonits (plus installation charges).

SIGNATURE WEAPONS

Signature locks read the palmprint or other bio-ID of the owner of the weapon they are installed on. If the hand holding the weapon does not match the palmprint or bio-ID of the owner, the weapon will refuse to activate. Signature weapons are available on all projectile and energy weapons (including power swords and force knives). Setting the initial "signature" requires a Moderate Crime Technics roll (see Repairing Items in SM). Defeating the mechanism requires a Sheer Folly Crime Technics roll. The weapon can also be rigged to self-destruct in any hand but the owner's. Signature weapons cost 1,500 elmonits plus 50% of the cost of the weapon.

CUSTOM BALANCED WEAPONS

Custom Balanced Weapons can be made for almost any weapon type, and are carefully balanced and manufactured with specially formed grips, matched specifically to the hand of the owner. Such custom weapons have a +10 OB in the hands of the owner, and are at -5 when used by anyone else.

POLYMER WEAPONS

Many non-energy weapons are available in almost undetectable high-impact polymer versions. Options include all melee weapons, 5, 10, and 12mm conventional pistols, 5, 10, and 12mm conventional rifles, 5 and 10mm conventional assault rifles, 15 and 20mm conventional shotguns, and all needleguns. All scanner attempts to detect polymer weapons are at -50 (most security scanners are set to detect metals and power sources). The failure/fumble range of Polymer weapons is increased by +1 (because of lighter construction). The cost for a polymer weapon is 3x the cost of a standard weapon of the same type.

CERAMIC WEAPONS

Most non-energy weapons are available in almost undetectable hardened ceramic versions. Options include all melee weapons, 5, 10, and 12mm conventional pistols, 5, 10, and 12mm conventional rifles, 5 and 10mm conventional assault rifles, 15 and 20mm conventional shotguns, all needleguns, 5 and 10mm conventional machine pistols, 10 and 12mm machine guns, all tangleguns, RPGs, and PMLs. All scanner attempts to detect ceramic weapons are at -30 (see above). The cost of a ceramic weapon is 5x the cost of a standard weapon of the same type.

FRANGIBLE ROUNDS (FR)

Frangible Rounds come in 5mm, 10mm, 12mm, and Linex versions, and can be fired from conventional pistols, machine pistols, rifles, assault rifles, machine guns, and MLA pistols and rifles. They are "disintegrating" loads (breaking apart completely upon impact). FR rounds are incapable of penetrating hard substances and are commonly used by elite paramilitary forces (and organizations such as VegaPol) in situations where gunplay may be required (e.g., in pressurized chambers—to prevent explosive decompression hazard). When an FR round is fired at a target wearing armor (usually ATs 5 through 20), the attack roll suffers a -25 modification and the result is reduced by one Mark# on the attack table. FR rounds are also available in poisoned and tranquilizer versions. FR rounds cost the same as HE (High Explosive) rounds of the same caliber.

POLYMER ROUNDS

High-impact Polymer (HP) rounds come in 5, 10, and 12mm calibers. They may be encased or caseless, and are also available in poisoned, tranquilizer, high explosive, needle and rocket versions. Scanners trying to detect HP rounds are at -50. The bullets are "sealed," and cannot be picked up on "chemical sniffers" unless the gun has been fired since it has last been cleaned. If an HP round is fired at an armored target (generally ATs 5 through 20), the attack is resolved as if the weapon were one Mark# lower. In all other respects, they are treated as comparable conventional rounds. HP rounds cost the same as HE (High Explosive) rounds of the same caliber.

CERAMIC ROUNDS

Ceramic (CR) rounds come in 5, 10, and 12mm calibers. They may be caseless or encased, and are also available in poisoned, tranquilizer, high explosive, needle, and rocket versions. Scanners trying to detect CR rounds are -30. The bullets are "sealed," and cannot be picked up on "chemical sniffers" unless the gun has been fired since it has last been cleaned. In all other respects, they are treated as comparable conventional rounds. CR rounds cost the same as HE (High Explosive) rounds of the same caliber.

8.2 NEUROLOGICAL EQUIPMENT

Here is a listing of neurologically-oriented gear and add-ons.

NEURAL INTERFACE/LINKAGE

One of the greatest advancements of modern technology is the ability to join the central nervous system directly into computer systems. The most common use of this technology is in Bionics, where artificial limbs are joined directly to the nervous systems to operate exactly as a real limb would. However, such linkages are used for other reasons. Some of these interfaces are used by programmers to make their work that much easier. To use an interface, the PC plugs himself into a computer's interface and uses his Attunement skill as described in the skill section. An interface may be installed at any location on the body. However, the most common locations are 1) the base of the skull, 2) along the spinal cord, 3) beside the temple (on the forehead or side of head), 4) on the hand or wrist. It is not uncommon for PC's with artificial limbs (who desire an interface) to have it built directly into the bionic portion of their body.

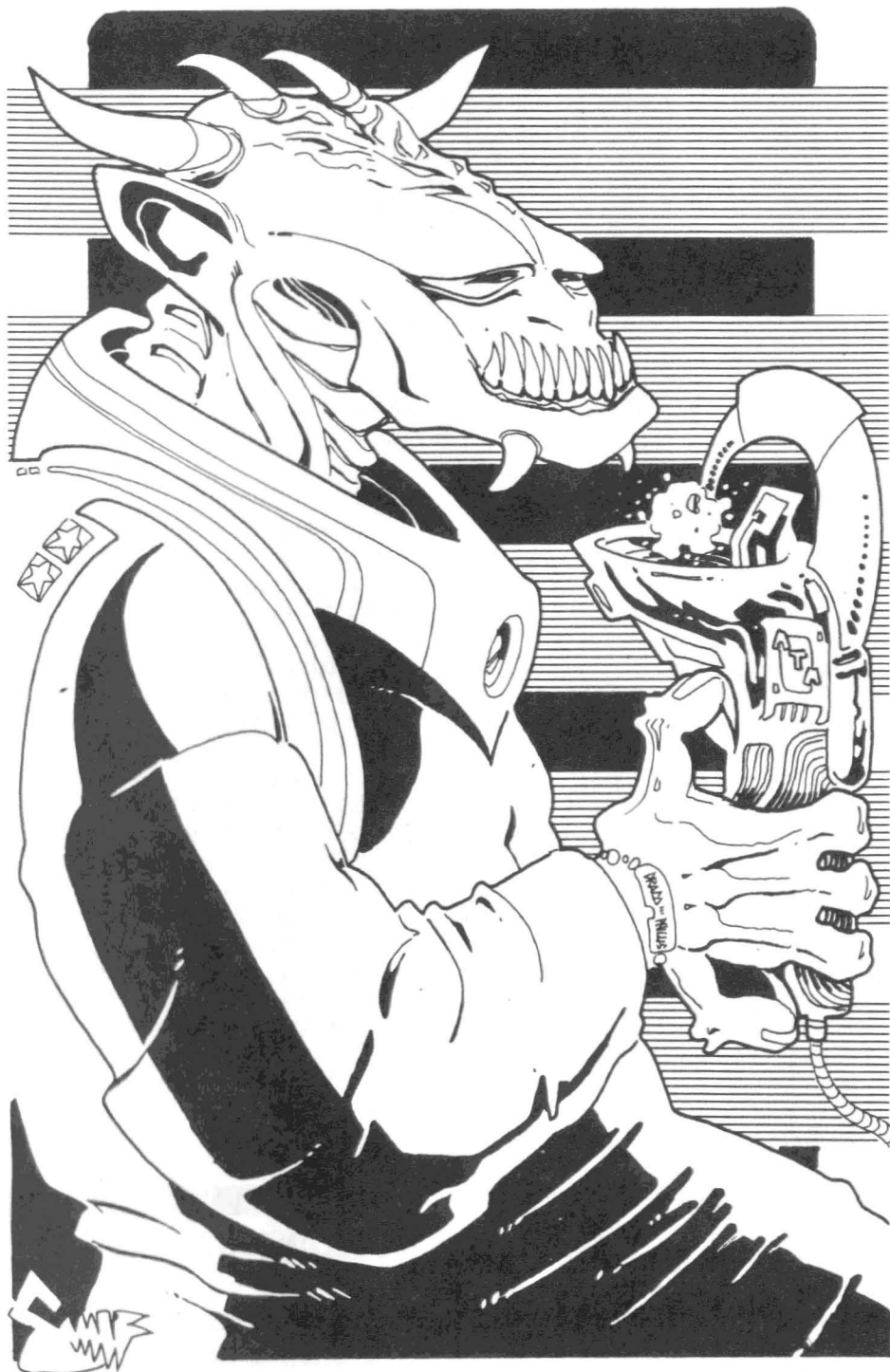
There are basically two different kinds of neural interfaces: male and female. The most common types are the female linkages, although these do require an interface cable to link up with a computer (almost all computers use female linkups). Male linkages do not require a cable, but are limited to a few locations on the body. The male linkages need to be in a site easily maneuvered into a position to plug into the computer's female linkage (e.g., replacing a finger with a male linkage or perhaps have one protruding from the skin on an interface cable.) Although most interfaces are standard, some are specially designed for security measures.

NEURAL RECORDER/VIEWER

The ultimate in recording and viewing equipment. This device is typically used for recording experiences for future playback through a Dream Game simulator. The Dream Game simulator is capable of playing all senses simultaneously, but these units are usually very large, taking up ten to twenty cubic meters in space. Such a simulator is constructed on a permanent basis, not typically for mobile purposes. However, the device is capable of playback to a small scale. Rather than playing back all five senses plus emotional status, this unit only plays back one sense at a time (including emotional standing as a single separate sense).

The recorder consists of two primary portions: the headgear and the central control unit. The headgear consists of a fine net of circuitry which fits over the scalp like a hair-net (appropriately termed the Neural Net). This net is connected to the recorder via a cable from the base of the net at the back of the head. The central control unit measures approximately 22 cm x 16 cm x 5 cm. It comes with shoulder straps and belt clips for carrying ease. The device records the experiences on a special type of memory discs called Neuro-discs. These Neuro-discs are only usable on Neural Recorders and Dream Game simulators of all kinds.

When the device is used to record experiences, the PC is unaware of the device's activity. It does not interfere with normal activity (other than minimal encumbrance). However, when used to play back a portion of an experience, everything is blank. For example, if the PC is using the device to play back visual information, he would not be able to hear, smell, touch, taste, or experience emotional state, neither from the disc nor from the world around him. The device will always completely cut the PC off from the outside world. With GM's discretion, more expensive units with the capability of experiencing multiple senses may be avail-



able. For example, a PC would be able to experience both vision and hearing, but no other senses (or perhaps three or four of the senses). For each additional sense able to "viewed" on a unit, the cost is doubled. (i.e., 1 sense = 1x, 2 senses = 2x, 3 senses = 4x, 4 senses = 8x). However, using multiple senses on such small units has an ill effect on the experience. For each additional sense used, the PC gains 10% less information (due to the inability for such a small unit to compensate for the neural variations).

NEURAL TRANSLATOR

This is a superior version of the standard translator. The Neural Translator is a full implant, being directly linked to the language centers of the subject's central nervous system. The unit is connected to comprehension and production centers and provides an external interface, usually located just behind and above the subject's right ear. The unit is capable of holding up to twenty different languages simultaneously. The external interface is used to interact with outside computers that have language programs. Such computers can be used to remove languages from the neural translator, store them, and replace them with other languages. The neural translator operates by identifying a language being heard, translating the signal into an understandable statement at the level of neural impulse, and then guides the subject's response in the appropriate language. The result is that the subject hears a language spoken, understands the statements, and replies in the same language, as long as the language is programmed into the translator. If the language is not in the translator and the subject does not know it, it is as if nothing was heard.

PSIONIC AID

There are two different classifications of Psionic Aids. The first acts as simply a power point multiplier by amplifying the PCs power. The second class acts as a focus for casting psions. Both classes of this device come as a type of headgear (e.g., could be a specialized helmet, skull cap, neural netting, computerized headband, or possibly an implant at 10x the normal cost). The only restriction is that the unit must have a portion fitting around the user's head (or central nervous system for unusual alien life-forms).

The two classifications work in their own fashion. The multiplying class simply allows the user to take his current PP standing and multiply it by the Aid's amplifying power (e.g., x2, x3, etc.). However, these units are not cumulative, the higher powered unit will void the lower powered unit all the time.

The second class of Aid assists in casting Psions. If a character attempts to overcast, for each round of preparation, the Aid may reduce the chance of failure by 5% per round, but may never reduce the chance of failing below 5%. That is, there will always remain a 5% chance of failure. Also, no one may prep a psion for more than 5 rounds. Finally, this class of Psionic Aid is not cumulative with others of the same class (i.e., using two of them would not reduce the chance of failure by 10% per round of preparation). Also, class one and class two Psionic Aids cannot be used simultaneously. In such an attempt, the two units will negate one another, and there will be no modification.

SYNCHRONIZER

The synchronizer is a device designed to aid in the focusing of one's concentration. The unit has a headband which wraps around the head from temple to temple, with extensions into the ears. The ear-pieces are speakers which produce soothing music or sounds. The headpiece is attached to a computer unit on the PCs belt. The computer is only 6 cm x 10 cm x 4 cm in size. The headpiece monitors brain waves to define the subject's mental state. The computer takes this information and interprets it into a musical form to help the PC relax and focus his concentration more intensely. The result of using the Synchronizer is a +20 modifier on any skill attempt which the character is focusing his full attention onto. However, the PC must spend at least one round using the Synchronizer before attempting the skill. For each additional round of concentrating the PC may add +1 to the Synchronizer's +20 modifier (maximum total of +25 for a skill while using the Synchronizer).

8.3

MISCELLANEOUS DEVICES

THE SERVO

Possibly the single most impressive piece of miniaturization technology in Imperial space is the multi-purpose weapon/tool known as the *Servo*. Manufactured for the Imperial Intelligence Directorate by Daneking/Cyberdyne, the Servo is the ultimate tool for most covert operatives. It appears as a small cylinder 14 x 2 cm, with several small rings and controls, which combine to indicate a number of different settings. Any two settings can be utilized simultaneously.

Truly the cutting edge in miniaturization, the Servo is powered by inductance taken directly from the owner's central nervous system. The operative issued a Servo must hold it in his bare hand for almost two hours, while the unit adjusts itself to draw power from the user. When its adjustments are complete, a small light on the unit will blink several times to indicate the process is complete. After this, *the owner must always maintain continuous bare-handed contact with the Servo for it to function*. No other being will be able to activate the Servo, and if it is held by the wrong hands for twenty continuous seconds, it will explode, delivering the equivalent of a point-blank Mark2 fragmentation grenade attack.

The Servo is usually carried in a scan-shielded subdermal pouch in the operative's left forearm.

Setting 1: Electronic Key—The Servo can be set to remotely activate or deactivate up to 250 different electronic systems (computers, cameras, locks, etc.) at a range of up to 200 meters. Setting the Servo for each individual unit to be activated requires a Routine Crime Technics skill check (see Construction rules in *SM*).

Setting 2: Stunner—This setting functions as a Mark 2 stunner.

Setting 3: N-Disruptor—This setting functions as a Mark 2 Neural Disruptor.

Setting 4: Communications Jammer—When activated, this setting can jam all communications within a 50 meter radius. All broadcast and microfrequency communications in this area must make an RR, with any defending system's level being equal to its Mark#. Up to 5 frequencies can be set as 'clear' transmission windows. Successful jamming attempts require an Extremely Hard Crime Technics skill check (see Construction rules in *SM*).

Setting 5: Personal Communicator—Treated as a standard pocket communicator, this setting ties the user in to the local Imperial intelligence communications frequencies (and can even be relayed to a TBD station for direct communications with the I.I.D.).

Setting 6: Electronic Bypass Tool—Adds +50 to all Crime Tech rolls relating to bypassing electronic security systems (such as electronic handprint locks).

Setting 7: Circuit Disruptor—A variant of the Molecutronic Scrambler, this Mark10 unit generates a field designed to disrupt the operations of electronic equipment (including all computer systems, but *not* molecutronic brains). This function has a 5

meter range, and the affected system must make an RR, with the defending system's level equal to its Mark#. Failure results in a roll on the Malfunction and Damage Determination Chart, or the Equipment Mishandling Chart (depending on the type of system affected) with modifiers to the roll equal to the percentage by which the RR is missed. For example, if the RR was missed by 25, the Malfunction roll is modified by +25.

Setting 8: Personal EW Generator—Functions in all respects as a standard personal EW generator.

Sus

This is a food stuff that comes in bars or mixed with water as a powder. One bar or serving contains the necessary nutrients for 1 active man for one day. Sus is inexpensive, a weeks supply is available for about 2 monets. It even tastes fairly good, being both sweet and salty at the same time.

THE AIR HOG

Similar to the grav raft, but much smaller. The air hog is a 1 or 2 person open air craft. It resembles a blunt banana with a saddle is about 2 meters long weighs about 450 kg. The hog has a top speed of about 220 kph. It has a maximum altitude of about 5 kilometers. The average air hog costs 10,000.

MEMEM

Memem is a very common material that literally thousands of items are constructed from. Its special ability is that under stimulus [heat, cold, pressure, electricity, light], it will perform a predetermined function. Some examples are:

- Smart furniture, which conforms to your shape when sat on, and will warm up, or cool down depending on the weather. It will also change into other types of furniture as needed. When a control box is applied, a piece of memem furniture can change from a bed, to a chair, to a sofa.
- Max tool, a tool which ergonomically molds to the users hand. It has a setting that allows the Max tool to become plastic. The tool's head flows around a nut or screw, then hardens, allowing maximum allowable force to be applied to it using the switch. The Max tool can alternately soften, bend, and harden.

Mass: 1.15x standard item mass.

Cost: 5x standard item cost.

COMBAT EQUIPMENT			
	Mass	Cost	
Miscellaneous Guns			
Doppleganger Pistol	3	400	
Doppleganger Rifle	5	900	
Incarceration Rifle	6.5	2250	
Tachyon Particle Rifle	11	5000	
TIERing Module	1.5	1050	
12 mm Enforcer	3	1300	
Rippergun Mrk 4	7.2	3500	
Rippergun Mrk. 5	9.1	5600	
Mass Gun	6.5	9000	
Molecular Coh. Disr.	12.5	30000	
Neural Disruptors			
Mini Neural Disruptor	.3	300	
Neural Disruptor Pistol	.5	700	
Assault Neural Disr.	4.5	1200	
Neural Disruptor Rifle	6	1500	
Heavy Neural Disruptor	7.5	2000	
Charge Packet Guns			
Mini CPG	.3	500	
CPG Pistol	.6	800	
Assault CPG	4.5	1800	
CPG Rifle	6.5	2500	
Heavy CPG	7.5	3200	
Masers			
Mini Maser	.2	240	
Maser Pistol	.5	500	
Assault Maser	3.5	1000	
Maser Rifle	4.5	1500	
Heavy Maser	6	2000	
ER Lasers			
Mini ER Laser	.2	480	
ER Laser Pistol	.4	1000	
Assault ER Laser	3	2000	
ER Laser Rifle	4.5	3000	
Heavy ER Laser	5.5	4000	
Cryoguns			
Mini Cryogun	.3	100	
Cryogun Pistol	.8	200	
Assault Cryogun	4	400	
Cryogun Rifle	5	650	
Heavy Cryogun	6	900	
Other Combat Items			
Molecular Chain	.3	8500	
Liquid Crystal Helmet	2.5	650-1200	
Disruptor Shield Net	3	2000/Mk	
Biomechanical Armor	3	150000	
Police Web	6	7500	
Synchronized Holster1 (set)		125	
Mag. Weapon Locks	—	250	
Signature Weapons	varies	varies	
Cust. Bal. Weapons	varies	2x	
Polymer Weapons	varies	3x	
Ceramic Weapons	varies	5x	
Frangible Rounds	.1-.3	.7-.13	
Polymer Rounds	.1-.3	.7-.13	
Ceramic Rounds	.1-.3	.7-.13	
Grenades			
Magnetic Pulse	.1k/Mk.	15/Mk.	
Flash (F)	.8/Mk.	.1/Mk.	
Flash Bang (FB)	.16/Mk.	.2/Mk.	
Incendiary (I)	.20Mk.	1/Mk.	
Melt Down (MD)	.8/Mk.	.2/Mk.	
Paralysis (PA)	.16/Mk.	.1/Mk.	
Sleep Aerosol (SA)	.16/Mk.	.1/Mk.	
Sonic Screamer (SS)	.32/Mk.	.1/Mk.	
Sonic Stun (STS)	.32/Mk.	.1/Mk.	
Stun Aerosol (STA)	.16/Mk.	.1/Mk.	
Tangle (T)	.8/Mk.	.1/Mk.	
Tear Aerosol (TA)	.16/Mk.	.1/Mk.	
Vomit & Tear (VTA)	.32/Mk.	.1/Mk.	
Vomit Aerosol (VA)	.16/Mk.	.1/Mk.	
Neurological Equipment			
Neural Interface	NA	2200	
Neural Rec./Viewer	1.5	1300	
Neural Translator	NA	3000	
Psionic Aid	0.3	2500	
Synchronizer	0.5	1700	
Miscellaneous Equipment			
Servo	1	10000	
Sus	0.1	2/week	
Air Hog	450	10000	
Memem	1.15x norm	5x	

9.0 VARIANT EQUIPMENT

9.1 WEVER-TECH

Wever-Tech specializes in making one-handed energy weapons. This includes pistols, energy knives and swords. Their product line also includes lasers, blasters, disruptors and struportorguns as well as the energized blade weapons. They produce above average quality weapons (costing a bit more than normal). Their corporate philosophy is 'kill it at close range with a single shot.' Each weapon model has its own pet name.

Overall, Wever-Tech weapons are superior at closer ranges, especially point blank. Although at further ranges, their accuracy drops off drastically to the point of near uselessness at long ranges. These range modifications vary for each model. Listed below are the different weapons in each category, their description, statistic modifications and cost.

MINI-LASERS

Piercer(*)—This thin tube fits right up someone's sleeve, with the power supply worn like a bracelet. The outside of the tube is insulated to protect the wielder from burning himself from weapon usage.

Mass: 0.13 **Cost:** 175

Mini Bore(*)—Similar to the Piercer, but smaller in design and overall effectiveness. It was designed with the 'if one shot is all you need' philosophy. With this weapon that is all you will get, one shot (which drains the cell completely). If this weapon fumbles, look out because it explodes (wielder takes a B Explosion critical).

Mass: 0.08 **Cost:** 105

LASER PISTOLS

Streaker(*)—This small fancy-looking weapon is the standard issue for many government employees. Because most users are not particularly interested in long range fire fights, Wever-Tech's Streaker is perfect for the close range single exchange encounter. This weapon is more reliable than most other pistols of its class.

Mass: 0.36 **Cost:** 285

Bore(*)—This pistol is actually an enlarged Mini-Laser. It is formed so to slide over the hand like a large bracelet and hide under clothes. The energy cell lays somewhere against the forearm of the wielder. Like the Mini-Bore, it is a one shot weapon with limited range, and deadly effects at very close ranges. If this weapon fumbles it explodes (wielder takes a C Explosion Critical).

Mass: 0.25 **Cost:** 210



Slicer(*)—An economy model produced by Wever-Tech. Smaller and less accurate than the Streaker, the Slicer allows adequate protection for far less money. These weapons are composed of mostly recycled materials. Plastic handles and barrels are common. When you credit is low, the Slicer is your weapon.

Mass: 0.21 **Cost:** 195

MINI-BLASTERS

Spitball(*)—With an accent on compactness and accessibility, the Spitball Mini-Blaster ranks high on the list. Similar in design to the Piercer, this weapon straps around the wielder's wrist. The whole barrel is made to fit under clothing without extraneous bulges and protrusions. The user must remember to either raise his hand or lower it when firing (depending if the weapon is strapped on top of or below his forearm).

Mass: 0.1 **Cost:** 175

Black Eye(*)—This small weapon packs quite a punch. It is designed to deliver one very powerful shot before draining the energy cell. Due to this energy drain, the Black Eye Mini-Blaster delivers damage up to the Mark 2 level. It is shaped like a long thin tube, three centimeters wide and seven centimeters long (strapping on to 1 arm)

Mass: 0.2 **Cost:** 225

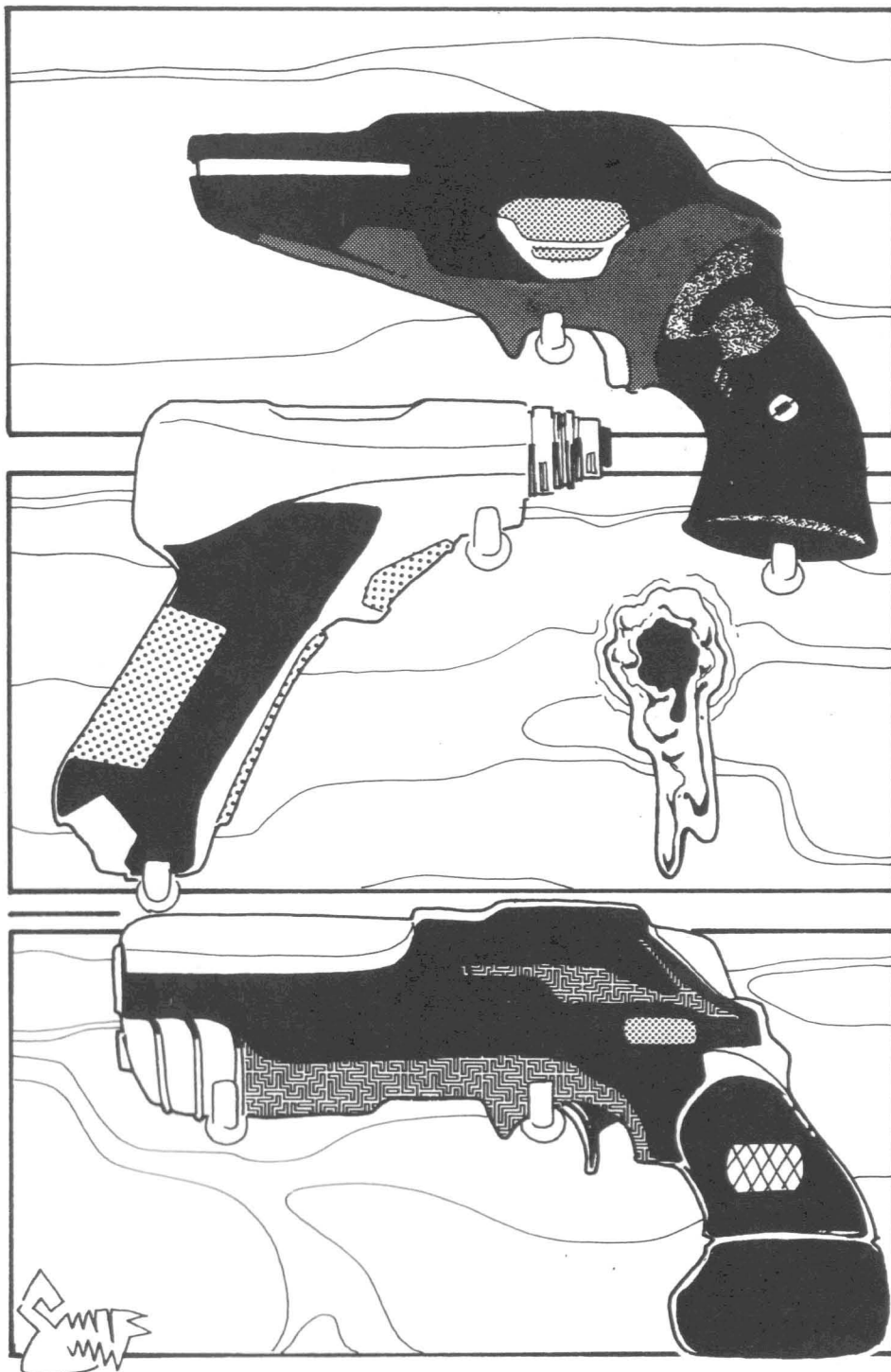
BLASTER PISTOLS

Pit Bull(2*)—Due to its large design, the Pit Bull Blaster tends to dish out great amounts of damage at short range. Some people have trouble handling this weapon with only one hand (minimum Strength bonus of +10, -05 to OB for each point less). Most persons enjoy the Pit Bull for its menacing look as it gives them more confidence. (Some people just feel that bigger is better, well the Pit Bull is bigger). Due to its energy source, this weapons attacks are resolved as a Mark #3 Blaster.

Mass: 0.35 **Cost:** 300

Pulser(*)—A sleek barrel and handle make this the weapon of professionals who have an image to maintain. In every detail, the Pulser is superior, especially in performance. It has proven itself so well in the short time it has been Marketed that many people carry two or more. Drawing and aiming time are shortened (+10 to initiative). This just might be Wever-Tech's best product ever.

Mass: 0.25 **Cost:** 325



Pugilist(*)—A state of the art Blaster Pistol, small, compact and easily concealable. Other than its lack of overall power, this pistol allows for quick draws and shooting for dangerous situations. Its grip is shaped to the wielder's hand. The special holster includes a quick release mechanism (+20 to initiative rolls).

Mass: 0.19 **Cost:** 290

MINI-DISRUPTERS

Spatter(*)—This small weapon is shaped to fit perfectly inside the wielder's hand (the cell is strapped to the wrist). This allows the user to appear as if he were not carrying any weapon at all (-50 to Perception rolls). In all other respects, the Spatter is inferior to its brother weapons. (Optional initiative modifier of +25).

Mass: 0.12 **Cost:** 390

Rupture(*)—A long tube with a palm grip, the Slicer dishes out superior damage at short ranges, but like all Wever-Tech weapons, the long range capabilities are limited.

Mass: 0.25 **Cost:** 350

DISRUPTER PISTOLS

Splatter(*)—Like its smaller brother, Spatter, this pistol is designed to fit in the palm of the wielder's hand, with the energy cell strapped around the wrist. Some have holsters affixed the wielder's forearms with a simple release mechanism that allows for a quick draw (light maneuver, success gives +50 initiative for that round only).

Mass: 0.4 **Cost:** 850

Vapor(3*)—A menacing looking Disruptor that carries a bite to match. Due to its design, it needs a special holster (its hard to miss someone wearing a Vapor on his side). The Vapor only fires once per round, but strikes like an Assault Disruptor). Usually, this weapon comes in jet black or grey colors with many light meters this part is just show - +10 to Interrogation and similar intimidation skill rolls.

Mass: 0.65 **Cost:** 825

Dis'ter(*)—A state of the art Disruptor. It is effective at point blank, short, and medium ranges. It's sorely inadequate at long ranges. This highly reliable weapon has proven itself time and time again (both on the target range and battle field). The Dis'ter costs quite a bit, but its all the gun you need.

Mass: 0.55 **Cost:** 1.100

MINI-STRUPTORGUNS

Sparker(*)—A small needle-like device with a cord attaching to the energy cell. It fits into any light-pen sized pockets or sleeves. This device has a telescopic barrel that extends up to one meter.

Mass: 0.12 **Cost:** 650

Flasher(2*)—A palm sized device. This weapon emits a bright light before firing (RR versus level 10 or be blinded). If foe is blinded, the wielder gains +25 to his OB.

Mass: 0.19 **Cost:** 700

Struptorgun Pistols Striker(*)—A twin barrelled weapon, one for Disruptor mode and the other while set for stun. In overall design, the Striker is an adequate pistol, but don't start a war with it.

Mass: .35 **Cost:** 950

Lightning(2*)—Compact, fast shooting and deadly accurate at close ranges. This pistol proves itself with each use. The Lightning fires 3 times a round, although for each additional round of fire at this rate increases the weapons fumble range by a cumulative +02.

Mass: 0.4 **Cost:** 1,350

RANGED WEAPONS

Weapon	Type	Rate	F	Range (Meters)				Range Modifiers				Table Used	Notes
				PB	SR	MR	LR	PB	SR	MR	LR		
Piercer	1H En	1/rnd	7	1.5	7	10	13	+25	+10	-40	-130	Laser Mark 1	Weapon Cell only
Mini-Bore	1H En	1/rnd	8	1	4	7	9	+35	-10	-70	-175	Laser Mark 1	One Shot per cell
Streaker	1H En	2/rnd	6	4	25	45	175	+25	+10	-40	-120	Laser Mark 2	1 Weapon Cell
Bore	1H En	1/rnd	8	5	20	30	125	+40	+05	+65	-200	Laser Mark 2	One shot per cell
Slicer	1H En	2/rnd	7	3	20	45	175	+20	0	-45	-130	Laser Mark 2	1 Weapon Cell
Spitball	1H En	1/rnd	5	1.5	6	9	12	+25	+05	+40	+110	Blaster Mark 1	Weapon Cell only
Black Eye	1H En	1/rnd	5	2	5	9	12	+20	-05	-55	-150	Blaster Mark 2	One shot per cell
Pit Bull	1H En	2/rnd	5	5	20	40	170	+25	+05	-40	-100	Blaster Mark 3	Uses 2 cells
Pulser	1H En	2/rnd	4	6	30	50	190	+20	+15	-20	-90	Blaster Mark 2	1 cell
Pugilist	1H En	2/rnd	5	5	25	45	160	+20	0	-40	-110	Blaster Mark 2	1 cell
Spatter	1H En	1/rnd	5	1	2	3	5	+10	0	-45	-125	Disruptor Mark 1	Weapon Cell only
Rupture	1H En	1/rnd	5	1	3	4	8	+20	0	-40	-110	Disruptor Mark 1	Weapon Cell only
Splatter	1H En	2/rnd	5	3	5	10	50	+20	0	-50	-125	Disruptor Mark 2	1 cell
Vapor	1H En	1/rnd	5	5	10	15	40	+35	+05	-50	-125	Disruptor Mark 3	3 cells
Dis'ter	1H En	2/rnd	4	4	7	15	30	+25	+10	-10	-200	Disruptor Mark 2	1 cell
Sparker	1H En	1/rnd	5	.5	1	-	-	+15	0	-	-	Disruptor Mark 1	Range is 1 meter
Flasher	1H En	1/rnd	5	1	2	3	7	+20	0	-25	-90	Disruptor Mark 1	2 cells
Striker	1H En	2/rnd	5	3	5	10	35	+15	0	-35	-100	Disruptor Mark 2	1 cell
Lightning	1H En	3/rnd	6	5	10	20	50	+35	+10	-25	-90	Disruptor Mark 2	2 cells

MELEE WEAPONS

Name	Type	F	Melee Mark #	Melee Crit	Notes
Fang	1H Edged	6	3	Slash	1 Energy Cell
Ripper	1H Edged	7	4	Slash	1 Energy Cell
Halver	2H Edged	8	4	Slash	2 Energy Cells
Cleaver	2H Edged	10	6	Slash	2 Energy Cells

FORCE BLADES

Fang(*)—A dagger with an energy cell attached to the end of the pommel. When Fang is activated, its blade becomes visible. It is shaped like a jagged seven inch long tooth.

Mass: 0.4 **Cost:** 650

Ripper(*)—A nastily-edged force shield. This weapon rips as well as it slices. When activated, the Ripper forms a long blade with many hooks and barbs along it. When brandished, the foe must make a RR versus the wielder's ranks in the weapon or lose attacks this round.

Mass: 0.5 **Cost:** 800

FORCE SWORDS

Halver(2*)—A long thin power blade that mimics a longsword, except it hums as it swings and makes explosions when striking any solid object. Many prefer this weapon when facing foes who are technologically inferior in combat, +5 Pr. Foes who are in melee against a wielder of a Halver must make an RR with SD or act at -10 due to disorientation. Those struck by a halver must make a RR versus fear or be disoriented (-50 to all actions until a successful orientation roll is made).

Mass: 0.6 **Cost:** 4,500

Cleaver(*)—A meter-long broadsword-like force-blade economy weapon. Its affordability comes from its being constructed from recycled and reused components. You never know how many times your Cleaver has seen the battlefield, or how many times it will see it again.

Mass: 1.1 **Cost:** 5,000

9.2 GALACTIC ASSAULT WEAPONS (GAW)

GAW is an auspicious company that produces a wide range of assault weapons and rifles. They have also stepped into the weapons arena with several different models of heavy weapons. There is no single trend with GAW weaponry, like in other companies. The corporate headquarters are located on Venus, and have branches in most sectors of the galaxy.

CONVENTIONAL ASSAULT RIFLES

Mach 70 Assault Rifle—A 10mm weapon with great range and accuracy. It has two feed ports and a slide lever to switch between them. Each clip holds either 21 or 31 rounds. It can fire either two bursts or two single shots.

Mass: 4.5 **Cost:** 525

Mach 90 Assault Rifle—A new level in projectile weaponry. The Mach 90 uses 15mm ammunition (clips hold 18 rounds). It can fire either two bursts or two single shots per round. All damage is resolved on the Small Projectile Attack Table MARK3.

Mass: 6.5 **Cost:** 1,200

Ammo Cost: 25

Mach 55 Mini Assault Rifle—This cut-down 5mm weapon is a smaller version of the Mach 70. Except for ammo size, it is identical to its larger brother. Attacks are resolved on the Small Projectile Attack Table MARK1.

Mass: 3.0 **Cost:** 325

CONVENTIONAL MACHINE GUNS

Mach 25 Light Machine Gun (Screamer)—Being light weight, small and highly concealable, the screamer is a favorite for subterfuge types. Each clip of the 10mm machine gun holds 50 rounds. This weapon fires up to three bursts per round. All attacks are resolved on the Small Projectile Attack Table MARK3.

Mass: 4.5 **Cost:** 1,500

Mach 34 Machine Gun (Duster)—A large caliber, light-framed weapon. The Duster provides adequate performance with above average reliability.

Mass: 6.5 **Cost:** 2,500

CONVENTIONAL SHOTGUNS

Mach 72 & 72A Shotgun (Buck-Eye)—Alloy barrels and ceramic casing make the Buck-Eye an exceptional shotgun. The Buck-Eye comes in either double-shot or twelve round automatic versions.

Mass: 3.3 **Cost:** 300

Mass: 4.0 **Cost:** 1,000

NEEDLEGUNS

Mach 217 Needlegun Pistol (Pine Needler)—A small hand-held weapon that compromises effectiveness for concealability (+10 to Hide Item rolls). A must for intelligence agents.

Mass: 0.66 **Cost:** 425

Mach 276 Needlegun Rifle (Lancer)—This needlegun sports an auxiliary ammo port for faster reloading (reduce reload time by one round). The Lancer has superior accuracy at all ranges.

Mass: 2.9 **Cost:** 1,750

Mach 282 Needlegun Carbine (Vacillator)—A double barrelled Needlegun with limited range. This is overcompensated for by the doubled rate of fire (+1 shot per round).

Mass: 3.3 **Cost:** 1,050

TANGLEGUNS

Mach 318 Tanglegun Rifle (Web'er)—A pump-action weapon with a six round clip. The Web'er is good at all ranges due to its specially designed barrel and stock.

Mass: 5.4 **Cost:** 2,200

TASERGUN

Mach 312 Tasergun Pistol (Hot Shock)(2*)—A medium-range, high voltage weapon that is sure to stop your target in his tracks. Superior design allows increased electrical shocks to victim (+5 to all critical rolls).

Mass: 1.5 **Cost:** 950

Mach 512 Tasergun Rifle (Overload)(3*)—Carries a 10 meter cable. The unit slides over the user's wrist and forearm. Has a double charge for when one jolt is just not enough. The Overlord acts as a Mark III weapon with all criticals increased by one level of severity.

Mass: 4.7 **Cost:** 2,600

ROCKETGUNS

Mach 236 Rocketgun Carbine (Firefight)—High tensile strength alloy in the barrel allows the Firefight to shoot multiple rockets quickly (+2 rockets per round).

Mass: 3.3 **Cost:** 1,300

MAGNETIC LINEAR ACCELERATORS

Mach 281 Magnetic Linear Accelerator Pistol (Rocketeer)—With a 50 cm long barrel, this pistol packs a punch with an accent on accuracy. The Rocketeer comes with a fifteen round clip.

Mass: 1.4 **Cost:** 1,000

Mach 287 Magnetic Linear Accelerator Rifle (Pillum)—Named after the ancient Roman spear used to knock over and crush a foe, the Pillum follows its namesake well. A 1.65 meter barrel with autofeed allow for improved accuracy and firepower (all criticals increased by one severity).

Mass: 5.9 **Cost:** 2,750

GRENADE LAUNCHER

Mach 342 Grenade Launcher (Pugsly)(*)—The Pugsly has a built-in guidance system. The auto-pump action quickly fires the grenades from the twelve round drum.

Mass: 5.4 **Cost:** 1,300

ASSAULT LASERS

Mach 227 Assault Laser (Narwell)(†)—A simple weapon with only a safety and trigger, the Narwell suits the common man's needs. With a 'no-frills' design, this laser makes a great learning weapon.

Mass: 2.9 **Cost:** 975

Mach 235 Assault Laser (Mongrel)(†)—A down and dirty laser that pounds out the firepower, although its increased performance has limited its range. Fires four shots per round.

Mass: 3.25 **Cost:** 1,200

LASER RIFLES

Mach 456 Laser Rifle (Dissector)(†)—A short ranged wonder. The dissector packs a powerful punch, but is more likely to drain its charge unit. The Dissector increases all criticals by one severity and is treated as a Mark V weapon.

Mass: 6.5 **Cost:** 2,100

HEAVY LASERS

Mach 735 Heavy Laser (Photon)(‡)—An economy line heavy laser with the bare essentials. Overall, the Photon rates slightly below average. Easily mass produced, the Mach 735 is made more affordable.

Mass: 4.2 **Cost:** 975

Mach 743 Heavy Laser (Apocalypse)(‡)—This unit provides the ultimate in target decimation. The Apocalypse fires in powerful bursts increasing all criticals by two levels of severity. This weapon is superior at all ranges.

Mass: 5.9 **Cost:** 3,750

ASSAULT BLASTER

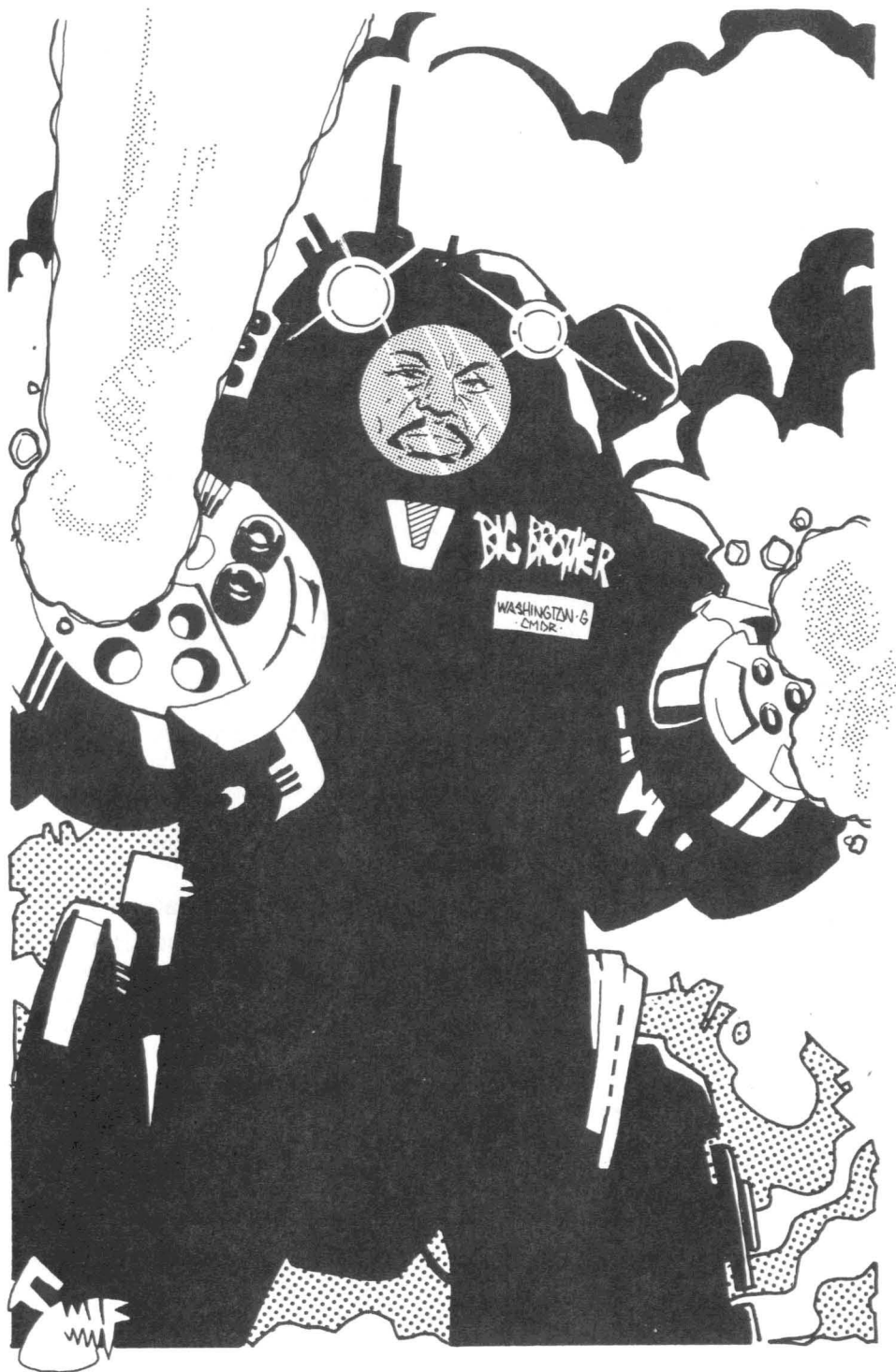
Mach 349 Assault Blaster (Violence)(†)—Used mostly by riot police and the military, this weapon operates well against multiple opponents. A high rate of fire with a built in spread pattern make it an anti-mob weapon. Those not trained exclusively with this unit suffer an additional -25 to their OB. When directed at a single foe, modify OB by -50. When shooting at multiple foes indiscriminately, increase OB by +25.

Mass: 2.9 **Cost:** 675

BLAST RIFLE

Mach 387 Blast Rifle (Vector)(†)—A very accurate weapon, with ranges are all increased by 25%. At medium and long ranges, the Vector is one of the most "on target" blasters in the Market.

Mass: 4.6 **Cost:** 1,500



RANGED WEAPONS													
Weapon Name	Type	Rate	F	Range (Meters)				Range Modifiers				Table Used	Notes
				PB	SR	MR	LR	PB	SR	MR	LR		
Conventional Assault Rifle													
Mach 70	2H Proj	2/rnd	2	2	25	60	120	+20	+05	-20	-75	Sml Proj Mark 2	21-31 Rounds
		burst	3	2	20	50	100	+25	+10	-25	-85		
Mach 90	2H Proj	2/rnd	2	2	25	50	100	+15	+05	-25	-100	Sml Proj Mark 3	18 Rounds
		burst	3	2	20	40	80	+15	+0	-25	-110		
Mach 55	2H Proj	2/rnd	2	2	25	60	120	+20	+05	-20	-75	Sml Proj Mark 1	21-31 Rounds
		burst	3	2	20	50	100	+25	+10	-25	-85		
Conventional Machine Guns													
Mach 25	Sup Proj	burst	3	3	50	150	500	+25	+0	-30	-95	Sml Proj Mark 3	50 Rounds
Mach 34	Sup Proj	burst	3	5	50	200	800	+15	+05	-20	-80	Sml Proj Mark 3	45 Rounds
Conventional Shotguns													
Mach 72	2H Proj	2/rnd	2	3	20	40	60	+35	+05	-25	-100	Shotgun	2
Mach 72A	2H Proj	2/rnd	2	3	20	40	60	+35	+05	-25	-100	Shotgun	2 rounds
		burst	3	3	25	50	75	+40	+0	-30	-120	Shotgun	12 rounds
Needleguns													
Mach 217	1H Proj	burst	4	3	10	20	30	+10	-05	-45	-110	Sml Proj Mark 1	+10 Hide Items
Mach 276	2H Proj	burst	4	3	10	20	30	+20	+05	-20	-80	Sml Proj Mark 3	Fast Reload
Mach 282	2H Proj	burst	5	3	10	20	30	+15	+0	-30	-90	Sml Proj Mark 2	Double Barrel
Tangleguns													
Mach 318	2H Proj	2/rnd	3	2	10	20	60	+20	+05	-20	-80	Entangle Mark 5	56 Rounds
Taserguns													
Mach 312	1H Proj	1/rnd	5	2	3	4	5	+35	+0	-40	-100	Sml Proj Mark 1	+10 Crit Roll
Mach 512	2H Proj	2/rnd	5	2	10	20	100	+20	+0	-30	-95	Sml Proj Mark 3	Crit Increase
Rocketguns													
Mach 236	2H Proj	2/rnd	4	0	100	300	900	+0	+0	-30	-90	Sml Proj Mark 3	Double Fire
		burst	4	0	75	150	600	+0	+0	-30	-90	Sml Proj Mark 3	
Magnetic Linear Accelerators													
Mach 281	1H Proj	2/rnd	5	5	100	500	1000	+25	+10	-20	-65	Sml Proj Mark 4	15 Rounds
Mach 287	2H Proj	2/rnd	5	5	200	600	2000	+10	+0	-45	-100	Sml Proj Mark 5	20 Rounds
Grenade Launchers													
Mach 342	Launch	2/rnd	2	10	30	60	100	+35	+10	-25	-75	Launch Error	12 Rounds
Assault Lasers													
Mach 227	2H En	2/rnd	7	3	25	70	90	+10	+0	-40	-130	Laser Mark 3	Weapon Cartridge
Mach 235	2H En	4/rnd	7	3	20	60	80	+35	-10	-70	-175	Laser Mark 3	3 Cartridges
Laser Rifles													
Mach 456	2H En	2/rnd	7	3	30	90	325	+45	+0	-30	-110	Laser Mark 5	+1 Crit Increase
Heavy Lasers													
Mach 735	Sup En	2/rnd	8	5	90	450	850	+10	+0	-35	-100	Laser Mark 5	1 Weapon Pack
Mach 743	Sup En	2/rnd	7	5	100	500	1000	+20	+05	-20	-70	Laser Mark 5	2 Packs, +2 Crit Increase

Weapon Name	Type	Rate	F	Range (Meters)				Range Modifiers				Table Used	Notes
				PB	SR	MR	LR	PB	SR	MR	LR		
Assault Blasters													
Mach 349	2H En	4/rnd	5	3	25	70	150	-05	+10	+40	-40	Blaster Mark 3	For riot control
Blast Rifles													
Mach 387	2H En	2/rnd	5	4	37	130	310	+05	+05	+20	+05	Blaster Mark 4	1 Weapon Cartridge
Heavy Blasters													
Mach 990	Sup En	2/rnd	5	5	40	400	1000	+55	-10	-45	-130	Blaster Mark 5	+2 Crit Increase
Mach 994	Sup En	2/rnd	5	5	40	400	1000	+30	+05	+10	-05	Blaster Mark 5	+2 Crit Increase
Assault Flamers													
Mach 351	2H En	2/rnd	12	3	15	25	45	+20	+0	-20	-80	Flamer Mark 4	1 Flamer Cartridge
Mach 362	2H En	2/rnd	10	3	10	20	30	-10	-10	-10	-10	Flamer Mark 3	1 Flamer Cartridge
Flame Rifles													
Mach 468	2H En	2/rnd	8	4	20	40	55	+25	0	-40	-110	Flamer Mark 4	1 Flamer Cartridge
Heavy Flamers													
Mach 875	Sup En	2/rnd	9	5	40	80	120	+20	0	-35	-95	Flamer Mark 5	+1 Critical Increase
Assault Stunners													
Mach 315	2H En	3/rnd	4	3	10	20	100	+15	0	-35	-95	Stunner Mark 4	1 Weapon Cartridge
Stun Rifles													
Mach 428	2H En	2/rnd	7	3	15	30	200	+20	0	-25	-85	Stunner Mark 4	1 Weapon Cartridge
Heavy Stunners													
Mach 902	Sup En	2/rnd	5	5	20	60	300	+10	0	-30	-50	Stunner Mark 5	1 Weapon Pack
Assault Disruptors													
Mach 273	2H En	2/rnd	5	3	10	20	100	+35	+05	-35	-95	Disruptor Mark 3	1 Weapon Cartridge
Disruptor Rifles													
Mach 216	2H En	2/rnd	4	3	15	30	200	+15	0	-30	-90	Disruptor Mark 4	-10% Malfunct Rolls 2X Damage
Mach 463	2H En	2/rnd	5	3	15	30	200	+20	0	-30	-95	Disruptor Mark 4	
Heavy Disruptors													
Mach 1000	Sup En	2/rnd	5	5	20	60	300	+65	+05	-50	-125	Disruptor Mark 5	+3 Crit Increase
Assault Struptorguns													
Mach 273	1H En	2/rnd	4	4	7	15	30	+25	+10	-10	-200	Disruptor Mark 2	1 cell
Struptorgun Rifles													
Mach 329	2H En	2/rnd	5	3	15	30	200	+10	-05	-40	-100	Disruptor Mark 4	1 Weapon Cartridge
Heavy Struptorguns													
Mach 907	Sup En	2/rnd	5	5	20	60	300	+10	-05	-45	-105	Disruptor Mark 5	1 Weapon Pack
Plasma Repeater Rifle													
Mach 869	2H En	2 bursts	8	3	20	40	100	+25	+10	-20	-80	Blaster Mark 5	1 Weapon Reactor
Mach 885	2H En	2/bursts	9	3	20	40	100	+15	0	-35	-95	Blaster Mark 5	1 Weapon Reactor
Heavy Plasma Repeater													
Mach 1150	Sup En	2/bursts	9	3	30	80	250	+20	+05	-30	-85	Blaster Mark 5	2X Damage, +2 Crit

HEAVY BLASTERS

Mach 990 Heavy Blaster (Rampage)(‡)—A device of mass carnage. All criticals are raised by two severity levels. The Rampage does its best slaughtering at short ranges.

Mass: 12.0 **Cost:** 2,500

Mach 994 Heavy Blaster (Colossus)(‡)—If you thought the Rampage was bad, the Colossus is vicious. Designed for long range combat, this huge weapon comes with a built on tripod and manual scope. All criticals are raised by two severity levels.

Mass: 14.5 **Cost:** 2,950

ASSAULT FLAMER

Mach 351 Assault Flamer (Treaty)(†)—The Treaty is a compact weapon designed to do the work of larger weapons. The strain from competing with Flamer Rifles and even some bottom line Heavy Flamers makes the Treaty somewhat unreliable. All attacks are resolved as a Mark #4 weapon.

Mass: 4.1 **Cost:** 800

Mach 362 Assault Flamer (Rashtar)(†)—This is a middle of the road flamer. The Rashtar's small size is compensated by a special heat reduction coupler mounted on the end of the barrel (-10 OB at all ranges).

Mass: 4.4 **Cost:** 450

FLAME RIFLE

Mach 468 Flame Rifle (Roaster)(†)—The rifle of the military. Highly reliable and able to deliver adequate damage to either kill or cripple any foe. Unfortunately at long ranges the Roaster slips in performance.

Mass: 5.2 **Cost:** 680

HEAVY FLAMER

Mach 875 Heavy Flamer (Nishtar)(‡)—The Nishtar is designed to emit more flame with less residual heat to the wielder. A special aerator coupling mounted on the end of the barrel makes this possible. All criticals are shifted up one level of severity.

Mass: 6.8 **Cost:** 1,400

ASSAULT STUNNER

Mach 315 Assault Stunner (Inhibitor)(†)—A heavy duty weapon that combines speed with power. The Inhibitor's solid cast alloy design features alternate hand-holds for the most comfortably wielded assault weapon on the Market (fumbles less often). Fires three shots per round with results resolved as a Mark IV weapon.

Mass: 7.5 **Cost:** 1,500

STUN RIFLE

Mach 428 Stun Rifle (Jolts)(†)—The Jolts was mass produced and available at a more reasonable price in order to increase its usage in combat where many fail to see the overall ability of a Stun weapon. The Jolts is composed of plastic composites with a completely contained power feed to its pack. Note: With the above average performance and decreased price, the Jolts has a greater chance of faltering when used.

Mass: 4.0 **Cost:** 760

HEAVY STUNNER

Mach 902 Heavy Stunner (Seizure)(‡)—Heavy design and solid bracing make the seizure easier to aim and fire. Overall performance is average. Superior ability is only noticed at long ranges.

Mass: 5.3 **Cost:** 1,300

ASSAULT DISRUPTOR

Mach 216 Assault Disruptor (Viscerator)(‡)—This is the preferred weapon of most small unit tactical groups. The Viscerator is small and powerful and, most important, reliable. Much time and research went into creating a weapon that would stand up to the travails of combat and wartime usage. The Viscerator is an overall weapon, useable in almost all situation.

Mass: 3.7 **Cost:** 1,700

DISRUPTOR RIFLE

Mach 413 Disruptor Rifle (Argent)(†)—A reliable weapon with proven ability to stand up under fire (-1 fumble, -10% to malfunction rolls). It comes with a retractable scope and twin ports for both heat reducing aeration and power pack connections.

Mass: 5.1 **Cost:** 1,900

Mach 463 Disruptor Rifle (Peace Keeper)(†)—The Peace Keeper is a large weapon with the ability to release great amounts of damage upon a target. Along the stock and barrel are several different grips and triggers allowing for the most comfortable firing position (double all concussion damage).

Mass: 6.2 **Cost:** 2,475

HEAVY DISRUPTOR

Mach 1000 Heavy Disruptor (Vaporizer)(‡)—The largest weapon produced by the GAW corporation. The Vaporizer lives up to its name with an increase of three critical severity levels. At close ranges, this weapon is the deadliest every constructed.

Mass: 10.5 **Cost:** 3,500

ASSAULT STRUPTORGUNS

Mach 273 Assault Struptorgun (Atomizer)(†)—An economy line weapon with a 'no-frills' approach to gun play (-5 OB at all ranges).

Mass: 3.8 **Cost:** 1,800

STRUPTORGUN RIFLE

Mach 329 Struptorgun Rifle (Vulture)(†)—A compact weapon with average performance on the firing line. The Vulture is an economy model rifle.

Mass: 4.3 **Cost:** 2,500

HEAVY STRUPTORGUN

Mach 907 Heavy Struptorgun (Annihilator)(‡)—Following the Atomizer and Vulture, the Annihilator lies in the economy vane of armaments. Although this strip-down weapon is less effective than standard heavy Struptorguns, it fills in nicely in a pinch.

Mass: 5.3 **Cost:** 3,300

PLASMA REPEATER RIFLES

Mach 869 Plasma Repeater Rifle (Heathen)(§)—Most of the standard weapon design procedures were ignored during the creation of this weapon. The barrel is too short, the stock is too bulky, the weapon mounts around the wielder's forearm and hand, etc. When all these mistakes are added together, one fantastic weapon was born. (+10 OB at all ranges, 1.5x concussion damage).

Mass: 10.3 **Cost:** 7,200

Mach 885 Plasma Repeater Rifle (Anthem)(§)—As any of this class of powerful weapons, the Anthem provides power and reliability with only minor shortcomings in performance.

Mass: 10.8 **Cost:** 5,900

HEAVY PLASMA REPEATER

Mach 1150 Heavy Plasma Repeater (Omega-Osirus)(§)—Designed with vehicular destruction in mind. The Omega-Osirus proves man portable energy weapons can make tank commanders worry. When GAW Incorporated unveiled the Mach 1150, the largest of their weapons, several militaries traded in all their heavy man portable artillery for the Omega-Osirus. The Mach 1150 is light, powerful and reliable. All concussion damage is doubled and criticals are increased by two levels of severity.

Mass: 17.9 **Cost:** 12,000

10.0 BIOENGINEERED EQUIPMENT

10.1 "SOFTECH" ITEMS

The concept of radically bio-engineering organisms to make them suitable for specialized purposes and equipment was first introduced to role playing in the genre book *Dark Space (DS)*. Softechnology (Softech) was the term coined to include all aspects of organisms which were genetically-engineered and bio-manipulated to such an extent that they could serve the same purpose as tools and items created by more mainstream methods (e.g., electronics, physics, engineering, etc.). Those who design and create these special organisms have come to be called Softechnicians.

In *DS*, Softech is the technology of choice, and is employed in all aspects of day to day life, as well as other specialized functions, which include research, medicine, prosthetic adaptations, physical enhancement, and militaristic applications. For example, a glow-globe growing from the ceiling, providing illumination with bio-luminescence for a room would be considered normal.

However, there is no reason to limit Softech to *DS* campaigns. The technology required to employ Softech is merely specialized applications of molecular and cellular biology. The level of knowledge involved is easily incorporated in a **SM** setting. It would be completely acceptable to include Softech items and industry in **SM** campaigns, without reference to the particular dark genre of *DS*.

Many Softech items are listed and described in *DS*, which makes it an exceptional source book for this technology. What follows are additional items which fall under the broad categories defined in *DS*.

10.2 GRAFTS

Grafts are organisms which have been genetically engineered with the ability to bond to a host. In return for nourishment and sustenance (which the graft draws directly from the host's blood), the host gains the ability to activate and control the graft neuro-chemically as if it were a normal part of his body. For example, an individual who has grafted an additional arm to himself will have full use of that arm as if it were always a part of his biological system. For all purposes, the graft functions as if it truly were a part of the host. However, the graft could easily be removed if the situation warranted.

While not connected to a host, the graft organism must be injected with nutrient solution once per week or be soaked in nutrient bath. Note that a graft could be bonded to another graft which in turn was bonded to a host, creating a primary, secondary, and tertiary biological system.

HIVE EYE

This item is a small leathery hive, with a narrow insulated neuro filament attached at the top which will graft to the host at the base of the brain. When the filament is grafted at the base of the neck in the proper way, the small denizens of the hive will be in direct mental rapport with the host's brain.

A host of a Hive Eye will be able to familiarize himself with the details of the terrain for kilometers around his location. He accomplishes this by giving a mental command to the bee-like creatures living in the grafted hive to issue forth and scout a desired location.

Example: *Gurion the Vortex-Pilot hears some rather ominous sounds from the interior of a long abandoned crashed ship. Gurion is curious as to whether this poses a threat. This desire is quickly translated mentally to his Hive Eye, and a swarm of insectoids emerge from the Hive Eye and enter the ship through a small rent in the side. Five minutes later, the swarm reappears and enters the hive. Via the neuro filament, the insectoids transmit their perceptions of what lies within the ship to Gurion, allowing him the detailed perception of an oddly glowing cube.*

The Hive's swarm is able to move up to 6 kilometers from the host. A swarm usually consists of 10 bee-like insectoids, which will unobtrusively blanket an area that they have been commanded to search. A general command of "Tell me what lies over yonder hill," would take perhaps 30 minutes before the insectoids returned with their report as they meticulously examined all the land area beyond the hill, whereas a command of "Tell me what's making that strange glow through the door I'm facing (the host can transmit visual coordinates and instructions to the hive directly)," would take only a few rounds, depending on the distance the insects needed to fly. The insects have a top speed of 30 meters/round.

HIVE SLAYER

This hive is indistinguishable in appearance from a Hive Eye, but the constituent swarm members are large and more wasp-like. On mental command, a group of 10 cruel looking insects will issue forth from this graft and attack target specified by the host. If the host also possessed a Hive Eye, he could cause his deadly insectoids to issue angrily into a building and attack the occupant that he has knowledge of via sense replay.

The insectoids of the Slayer will all attempt to sting the target with a +60 Martial Arts: Strike, Rank 1 attack (use a +60 Sting attack if *Claw Law* tables are available). If a critical was generated, the target was stung and poison was injected. If unsuccessful (i.e., no critical was generated), one more attempt by each initially unsuccessful insect will occur, after which all the insects will retreat back to their hive. The swarm secretes a 2d10 level nerve poison, which takes 2 hours to regenerate after successfully injecting a target.

SENSORY CYTOSKELETON

This useful piece of Softech can be thought of as an external nerve graft. It appears as a filamentous web of organic fibers in a humanoid conformation with a hollow interior. These filaments are specially bio-manipulated nerves, designed to be worn.

To don the cytoskeleton, it is necessary to slide into it like one would a jumpsuit. Once the host is inserted, small fibrils in the cytoskeleton burrow into the host's skin, bonding with the host's own nerves. Once bonding is complete (2d10 rounds) the host experiences greatly enhanced sensory input.

The item specializes in a couple of senses unfamiliar to humans, but in no way supernatural. All the fibers of the cytoskeleton are capable of detecting minute vibrational fluctuations in the air, as well as sensing minute electrical fields, such as generated by a living organism. In game terms, this translates into the host being continually aware of all moving objects (not necessarily living) and all organisms (not necessarily moving) within 20 meters. The host can sense electrical fields through walls that are not electromagnetically shielded, and could also sense a shielded presence in his vicinity if it were moving. The host can operate in complete darkness at only -5 to all actions, and operate against cloaked/chameleoned foes at -10. Finally, the host gains an additional +25 bonus to all Perception rolls.

When not in use it is necessary to suspend the cytoskeleton in a nutrient solution.

CLOAKING CYTOSKELETON

In appearance, this item is indistinguishable from the cytoskeleton. In function, it is completely different. Once the host is inserted, the effects are immediately evident. Instead of enhanced sensory input, the cytoskeleton cloaks itself and its host from visual and electromagnetic detection.

The method the cytoskeleton uses for cloaking is the generation of precisely tuned waves of destructive interference across the electromagnetic spectrum (this includes infrared, the visual spectrum, radar, bio-electrical fields, etc.). To any observer, there is no hole in space. The host is cloaked.

The cytoskeleton is constantly emitting and adjusting for 1000's of wavelengths, which takes a large toll on the organism. After any amount of use, an equal amount of time is required by the cytoskeleton to soak in a nutrient bath for rejuvenation. The item can be used continuously for up to 6 hours, but if that much time elapses, the graft will need a full 24 hours rejuvenation time.

COMM-LOBES

Comm-lobes come in sets of at least two. Each individual unit is a small (3 cm ovoid) wrinkled gray lobe which will graft to the side of the host's cranium, sending small fibrils to insinuate the host's auditory center within the brain. A nerve filament will attach to the host's neck over the vocal cords. A secondary lobe is to be grafted to another host. Now, when either host speaks, even if it be a slight whisper, the Comm-lobe will pick up the vibrations of the vocal cords. Simultaneously, the complimentary comm-lobe will telepathically "hear" those selfsame vibrations and transmit them along the fibrils to its host's auditory center. To the receiving host, the words spoken by the other are perfectly clear. In this way, communication between two people will remain possible as long as both are on the same planet. Beyond that, the lobes become inert.

10.3 BRAIN BUDS

These organisms were evolved with the ability to bond semi-permanently with host. While the Bud draws sustenance and nourishment directly from the host's body, the host is able to draw upon the mental resources and abilities bio-engineered into the Bud. The 5 to 10 centimeter semi-spherical bud is usually attached somewhere to the host's cranium. While unconnected to a host, the buds must be stored in a nutrient bath or be injected nutrient solution 1/week.

DREAMBUD

This bud will provide the host with such a vivid dream experience that he will be hard pressed to distinguish the dream from reality. Whenever a host retires, this bud will serve to lengthen and enhance any dream normally produced. Many hosts employ the technique of lucid dreaming (i.e., consciously controlling the course of a dream). As any fantasy imaginable can be experienced, these buds prove very addicting to some.

Because of the enhancing qualities of the Dreambud, the occasional nightmare could prove dangerous. If the host perceives his death within a dream, his body will react, bringing death in reality. It is therefore best to attempt lucid control of the dream.



The probability of "going lucid" is a base 60% chance with the bud. This is modified upward by a cumulative 1% chance for every successful lucid dream the host experiences. Self Discipline bonuses are also applicable. If the dreamer does not gain lucid control, there is a 4% chance per use that a nightmare will occur. The circumstance and danger of the nightmare is left to the GM.

Dreambuds all share a telepathic link. This particular aspect of Dreambuds has opened a whole new frontier, which has been dubbed the "Dream-Net". Dreamers using the buds can range out from the confines of their own minds to visit the dreams of others. The terrain of the dream is often mutable, but locales visited often by many people can build up quasi-permanent dream edifices in the willing or possibly unsuspecting minds of dreamers. Dream Will can become a major factor during encounters within the Dream-Net. For affecting another person's dream, roll a d100 for each contest, adding SD, EM, and IN bonuses. Competing Dreamer's can compete with Dream Will. The highest score can decide a particular manifestation (i.e. form, attribute, terrain, object, edifice and event). Other modifiers are also applicable (i.e., actions on other dreamers forms, attributes or objects are at a minus; terrain changes and edifice destruction are at a minus depending on scale and form, etc.). The GM is encouraged to be creative in handling dream encounters.

"I had too much to dream last night," is a common statement among those addicted to these buds.

ABDUCER BUD

This is indistinguishable in appearance from a regular brain bud, but its purpose is very different. When placed on a humanoid head it will graft, insinuating small tendrils to every part of the host's brain. This takes 2d10 rounds. Once the process is complete, the host will be under compulsion to obey the verbal command of whomever the abducer is keyed to. Abducer buds are not meant to be removed, and ripping or cutting them off will subject the host to 3 E criticals of the GM's choice (usually 1 Shock, and if the GM has access to them in the RM Companions, 1 Stress and 1 Depression).

Abducers recognize their controllers by voice. Before an Abducer is placed on a host, the controller must key the bud with a specific command word.

Commands to the host which are completely contrary to a host's nature (i.e. suicide) allow the host a RR Vs a 15th level attack. Other commands can be resisted as a 30th level attack, but failure results in a C Shock critical. Every time a specific command is resisted in this way, the host gains a cumulative +10 bonus to resist that command in the future.

It should be noted that the Abducer utilizes the host's ears to hear a command, as it has none itself, so a deaf host would be uncommandable.

LANGUAGE BUD

Encoded in the RNA plasmids of this bud is the complete knowledge of up to 3 separate languages. When the host places this bud to his head, he will have access to knowledge allowing him fluency (level 10) in both verbal and written forms of the languages. If the bud is removed, all knowledge is lost.

SKILL BUD

These buds have encoded on their RNA plasmids actual skills, with reflexes, reaction times, and specialized knowledge associated with a particular skill. When the host places a Skill Bud on his cranium, an adjustment time of 10 minutes is required before he may utilize the skill stored in the bud. Each bud only contains one skill, but that skill could be anything. The skill bonus imparted by these buds can be from +50 to +150. For example, Celrindel the Virtual Clerk implants a Skill Bud for Force knife, +80. After the 10 minute stabilization period, Celrindel is able to wield the knife as well as any space-port laborer.

PSION BUD

Each of these buds have been genetically engineered to grant them telepathic powers. This translates to a specific Psion list encoded in the bio-matrix of the bud. All telepathic empowerment and execution of the list in question is operated by the bud. The host merely directs the use of the telepathic power. Each Psion Bud generates its own PP, which are double the level of the Psion list encoded (i.e., a bud containing a list to 10th would also have 20 PP). The bud regains PP at a rate of 1/hour.

10.4 PSEUDO-SYMBIONTS (PROGRAMMED CREATURES)

Programmed Creatures are usually free-roving or sessile animals which have been evolved to fill some specific design or purpose. Most are just slightly more intelligent than insects. They can subsist on weekly nutrient injections, or can be fed animal or vegetable matter to provide sustenance. Unless specified otherwise, most Pseudo-symbionts can take 30 hits, have an AT of 3, and have a DB of 0.

Mood Bugs

Softtechnicians have discovered that a human's sense of smell can have a surprising effect on the ability to perform. This effect can be either positive or negative, the variation depending upon the specific scent.

With these facts in mind, special scent-emitting creatures were developed. Upon verbal command, each bug will emit a particular scent from specialized scent sacs genetically engineered into the creature. Depending on the bug, the scent emitted will effect a different portion of the brain, producing a specific result. Effects of the scent last for 1d10 minutes, unless noted otherwise. A bug can emit a scent 3 times per day. Individuals unaware of the scent have only a 5% chance to avoid being affected. Those who recognize the scent can elect to resist the effects of the odor by making an RR vs. a 10th level attack. The scent emitted by the bug has an effective radius of 6 meters (unless noted otherwise). Up to two scents can affect an individual at once, with the result either being cumulative or the cancellation of an affect. Hosts can condition themselves to resist the effects of most bugs (or they can wear breathers).

Mental Clarity. Those affected by this lemon scent will feel clear headed, able to solve problems, and motivated to do so. A +10 stat bonus can be applied to Memory, Reasoning, and Intuition.

Confusion. The sour, cherry odor of this bug will induce confusion and distraction in those affected. Confused individuals have a -10 penalty to the stat bonuses of Memory, Reasoning, and Intuition. Additionally, confused individuals perform all actions at -10.

Ferocity. This bug is to be worn on near the host's head, as the scent is only effective

within a 1' radius. The copper scent produced by this bug exacerbates a human's primal urges buried deep in the brain. Once affected, the host goes into a frenzy (+30 OB, take twice concussion damage, deliver double concussion damage, DB drops to 0, and may not parry). Frenzy lasts for 2d10 rounds. An attempt can be made each round to come out of frenzy. Make a SD check (Hard) to end Frenzy: (d100+SD-10) > 100.

Calmness. The apple smell emitted by this bug causes humans in proximity to check any violent actions, by damping primal instincts. Those intent on hostile actions will be 50% more likely to seek some non-violent resolution (unless attacked). Those already attacking are 25% more likely to break it off. If attacked after the effect of the bug, they will resume their hostile attitudes.

Depression. This scent induces an artificial feeling of hopelessness and submission. In conversation, those affected will tend to agree with the host 50% more often than they normally would (due to feelings of apathy and resignation). Those affected are at -10 for all actions.

PORTAPEDES

These creatures have been recently derived from their far smaller cousins, the millipedes and centipedes. The Portapedes are similar in appearance but are approximately 2 meters in length, with its upper carapace being 1 meter in width, flat, and sturdily armored. If the top is clear, 4 people can easily stand upon the Portapede; but often seats are either bolted into the upper carapace, or organic seats are genetically engineered into the Portapede itself. In this case, 2 seats can be comfortably situated upon the Portapedes back. With a verbal command, the Portapede can flow in any desired direction or to any location familiar to the creature at a top speed of 80 kilometers per hour. A Portapede can travel for up to 12 hours non-stop (after which a 2 hour recuperation period is required).

HALO MOTHS

These insectoids come in nests of 10. Their wings produce a steady and strong bio-luminescence. To use, simply apply a special pheromone (not normally detectable) keyed to a particular Halo nest (secreted by that same nest). The moths will follow the doused individual, gliding and fluttering around him in a 5-meter radius. The bio-luminescence is quite adequate to read by or perform other exacting proce-

dures. The moths will maintain their illuminating dance for up to 10 hours. After this time, they will need to retire to their small, portable nest to recuperate for another 10 hours. A counter pheromone is also secreted by the nest. This will cause the moths to return to their recuperation cells early. The glow emitted by the moths can be in a variety of colors.

ARACHNASSASIN

This spider-like creature is able to perform particularly efficient assassinations. The primary organism is fairly immobile, only stirring occasionally. It is its progeny that perpetrate an assassination. To achieve this goal, a scrape of skin, a length of hair, or some other tissue sample must be obtained from the intended target and fed to the Arachnassasin. After consumption, a gestation period of 3 days will begin. The creature will lay a small clutch of eggs in a sticky web pod. The eggs contain developing spiderlings, all of which are keyed to the specific biochemical/genetic makeup of the intended victim. By placing the clutch of spiderlings in the residence (or someplace frequented by the target), it can almost be assured that some of the hunters will find their prey once they have hatched (approximately 3 days). The spiderlings inject a rapid nerve poison with a 10+1d10 level of potency for the target (1d10 level of potency against any other target).

The spiderling converge along a scent gradient. There is a 90% chance that the spiderlings will find the victim if he is within 15 meters of the egg's initial location for 30 minutes (15% chance for 5 minutes, 30% chance for 10 minutes, 45% chance for 15 minutes, etc.). If undiscovered, re-roll the percent chance of target acquisition for each additional block of time spent in proximity. For every 15 meters the victim is beyond the initial 15 meters, reduce the chance of acquisition by -10 (i.e. someone spending 30 minutes within 30 meters of initial egg placement would have a 80% chance of being found.) The number of spiderlings to reach the keyed target is dependent on the following: 1d4+10 are encountered within the first 15 meters, and for every additional 15 meter increment beyond the first 15, the number of spiderlings is reduced by 1 (i.e. at 30 meters, 1d4+9 are encountered, at 45 meters 1d4+8 are encountered, etc.). Spiderling stats: AT 1, DB 30, Hits 10, +40 Martial Arts: Strike, rank 1 (use a +40 Sting attack if there is access to *Claw Law*). Any critical result can be interpreted to mean a successful spider bite. The clutch of spiderlings will die within 30 days.

The beauty of this Softech item is that the spiderlings are small and innocuous seeming, to all but their intended victim, to whom they are devoted to find by an unfloutable biological imperative hard wired into their systems.

SCRIBGANISM (GENOMIC LIBRARY)

Crucial for Softechnicians in their work, scribganisms are simply the reservoir of genetic knowledge which is necessary in designing functional life forms (i.e., Softech).

All the genetic information that is necessary to describe almost any single creature (normal organisms, mutations, or Softech organisms) can be inscribed in the DNA of a single 1 celled organism! These micro-organisms have come to fall under the classification of microrg (A host of other genetically engineered microrgs have been developed and are detailed in the pages of DS.). Therefore, in a small culture of these storage microrgs, literally thousands, even millions of genetic blueprints could be stored.

It was quickly determined that the most efficient culture available would be a micro-organisms natural habitat—inside a living creature. To this end, special warm blooded creatures were bio-manipulated for the express purpose of storing inscribed microrgs, which came to be known as a Scribganism. Thus a single Scribganism the size of a lap pet could store millions of genetic blueprints, from ants to Bio-crystal power plants.

These genomic libraries are also infested with retrieval microrgs, and on verbal command will locate the desired inscribed microrg and transfer it to the ejection/reception orifice (the mouth in most cases) in a volume of inert plasma, where it can be extracted by a Softechnician. For storage of new genetic material, merely feed the scribganism a representative tissue sample of the creature to be genetically filed, along with a verbal identification number.

It is said that a scribganism was once accidentally infested with microrgs containing the essence of a human mind which had originally been slated for transference to a custom made replicant body. By the time the mistake was discovered, the Scribganism had disappeared. It is theorized that transference of sentience actually occurred within the Scribganism. If this were true, the newly awakened life form would have available to it millions of genetic variations. It could feasibly morph itself into any of these forms, and then to another, and another... Proteus has returned from legend.

ORGMOIDS

These curious Softech artifacts come in many sizes, ranging from the micro to the macro. Their uses are still being explored for applications, but in many instances, Orgmoids have already proven themselves quite useful.

Orgmoids come in humanoid configurations, whatever their size, but appear by design somewhat roughly finished. Bony exoskeletons often grow on battle Orgmoids.

An owner may "imprint" an Orgmoid by spending 1 hour in physical contact with the creature. The contact point must be at the back of the heads of both the owner and Orgmoid. During this time, small filaments will extrude from the 'moid directly into the host's brain. Using information discovered there, the mind of the Orgmoid will undergo rapid reconfiguration, becoming a virtual duplicate of the host's mind. At the end of the imprinting, the filaments retract. From this point on, the Orgmoid will instantly and exactly mimic the actions performed by the host (drawing on a newly formed telepathic link with the host). For example, if the host were to throw a punch, the Orgmoid would also, using the exact range of motion and stance used by the host, but proportional to the size of the Orgmoid. If the host began to dance, so also would the 'moid, mimicking the steps perfectly. In many instances, this will allow the Orgmoid to operate at the skill level of the host (e.g., in combat, the Orgmoid would have the same OB as the host.).

The host may choose to use part of his activity to manually control the Orgmoid. The host can direct the Orgmoid towards completely different actions than what the host is doing, however, both the host and the Orgmoid operate at -10 for all activities. When concentration ceases, the Orgmoid will once again begin to exactly duplicate the

host (until such time as the host wills the Orgmoid into quiescence). The Orgmoid will also become dormant if it strays more than 100 meters from the host. While the Orgmoid is within 10 meters of the host, the host may elect to draw on the senses of the 'moid, becoming oblivious to those senses of his own.

Small 'moids could fit into small inaccessible openings, or perform delicate operations. Larger 'moids with extra mass and muscle, could stand before the host and fight foes, drawing on the duplicated skill of the host.

Below is a sample selection of Orgmoid statistics, but the GM is encouraged to fill in types and sizes wherever desired. Remember, 'moids may utilize buds, grafts, symbiont moss, and pseudo-symbionts when applicable.

A host may wish to equip his 'moid with equipment and weapons of an appropriate size that he is skilled in.

Orgmoids cannot be stunned.

MORPH PODS

Each Morph Pod contains a volume of plasm taken from a specified creature, plus a transforming factor (specially design microrgs). Each pod sports a injection filament with a hollow needle at the end of bone. When a living being is pierced with the injection filament, the plasm and transforming factor within the pod will be squeezed along the filament into the recipient with powerful muscular contractions on the part of the pod.

The recipient of the plasm will then undergo a painful transformation which will take d10 days for completion. At the end of this time, the user will have become whatever type of creature whose plasm was originally stored in the Morph Pod, an exact genetic duplicate. All mental faculties of the user remain unaffected.

The transformation is made possible by the microrgs which are able to utilize the generous portion of plasm which is co-injected. The microrgs multiply like mad so that they may conduct their ordained function which is splicing, cleaving, and re-knitting the cells of the user at an unprecedented rate.

Morph Pods can be filled with the plasm of any biological creature who share common biological attributes, i.e. DNA, genes, similar proteins, etc..

It is recommended for those who wish to return to their original form that they acquire a blank Morph Pod. They can then drain a portion of their own plasm into it before altering their own form.

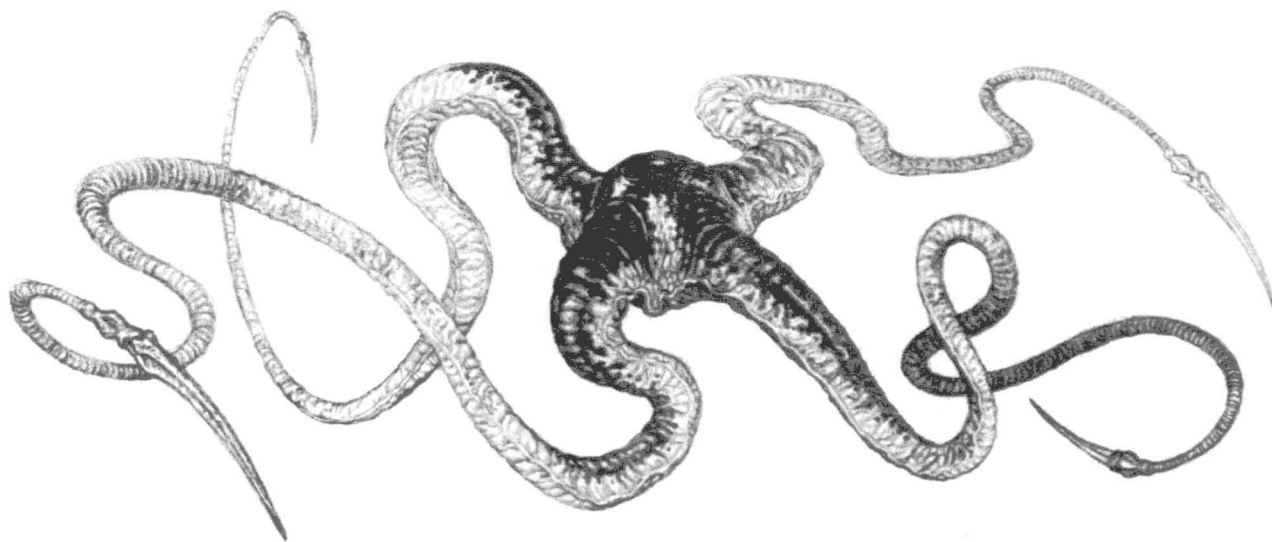
GUARD MORPH

Utilizing the Softechnology of Morph Pods, Guard Morphs were created. They are often hidden near portals, or left lightly buried near camp perimeters or secret enclaves. When any living creature approaches within 10' of these hidden man sized pods, a long tentacle-like tube will burst forth from the main body of the pod and attempt to pierce the flesh of the unsuspecting transgressor with a +100 Martial Arts Strike, rank 4 attack (use +100 Large Sting attack if *Claw Law* is available). If unsuccessful in its first attack, it will continue to rear back and strike once/round, reminiscent of a large snake. Any critical result signifies the attachment of the tube to the target. The target is immediately injected with a 2d10 level paralysis poison, effective immediately. In the succeeding 4 rounds a prodigious amount of plasm will be squeezed from the main body of the pod along the tube into the victim. If this process is halted at any time before the end of the final round, the victim will recover. If the

ORGMOID PHYSICAL CHARACTERISTICS

Size	Hits	DB (during manual control)	AT	OB Modification for Melee weapons
10 cm	4	as host	1	-95
1 meter	40	as host	3	-30
2 meters	100	as host	4	as host
3 meters	200	as host	4*	+30
4 meters	500	as host	battlemoid: 20 **	+95

*—reduce critical type by one
 **—takes large creature criticals



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morph completes its transferal of plasm, the poor unfortunate is doomed to undergo an agonizing transformation lasting 24 hours, finally becoming another brainless Guard Morph, fate to guard whatever he had originally sought.

The attacking tentacle has a +100 DB (falls to 0 once it is attached to a target) and an AT of 3. It takes 26 hits to sever a tentacle.

Some morphs have been designed with multiple tentacles.

BAFFLE FROG

This bio-modified creature is very useful for those who desire to move silently. In a manner similar to the Cloaking Cytoskeleton, the Baffle Frog creates an area of null-sound.

In appearance, the creature resembles a dark, largish frog without eyes. Its underbelly is distended for more than normal and it has tiny claws rather than webbed feet, to allow it to cling to its hosts garments.

On command(a special tap code) the frog will begin to produce a localized field of null-sound with very specialized organs in its belly. The resulting destructive interference serves to cancel out low noises within a 5' radius of it. The frog cannot cover sounds over a loud exclamation, such as a shout or the discharge of a projectile throwing fire-arm. But it will allow a host completely stealthy movement.

WATERWOG

This Softech item is indispensable for long overland journeys. It has the appearance of a large translucent vegetable pod with 5 root-like tendrils radiating from it. The tendrils allow it to cling to its carrier. Inside the pod cavity, water is visible. What distinguishes the 'wog from any normal water skin or canteen is that it is constantly replenishing its water supply from the atmosphere through induced condensation. By absorbing water vapor directly from the air and condensing it at a rapid rate, the Waterwog can accumulate up to a liter of water an hour (except in very dry regions). The 'wog has a short dispenser tube which the carrier merely sucks on to enjoy a refreshing drink of cool water (the low temperature of the water is side effect of the condensing process).

SUICIDE BUG

These one-use stalker/killer Softech creatures are hard to come by, and even the lowest level of biodesign can be prohibitively expensive for the discriminating shopper. These creatures resemble a cross between a beetle and a spider. There are 4 standard sizes, each distinguished by a Mark #. The size ranges from that of a large lap-pet up to the size of a small personal transport device.

The Suicide Bug has specific but limited intelligence for the reception and interpretation of verbal instructions. These instructions will usually consist of identification and the command to destroy a target. This program is swiftly executed by the bug as it scuttles forward at 100 meters/round and detonates upon reaching its specified target. The bug will pursue a fleeing target.

Detonation is a result of the creature's biomodified biological processes. Each bug secretes two different extremely reactive acidic compounds into separated and specially coated cavities within its body. When a suicide bug acquires a target, a sphincter muscle opens between the two cavities at the same time as muscular contraction causes rapid mixing. An extraordinary exothermic reaction causes the explosion of the bug, resulting in the wide range dispersal of extremely caustic acid. The radius and damage due to detonation is detailed in the table below according to the level of the bug.

Suicide Bugs normally follow their host peacefully about, trailing a little behind, but ever ready to discharge their prime directive.

For an upgrade in price, functional wings could be added to the bug, allowing a movement rate of 130 meters/round.

COMPANION

This small creature is about the size of a clenched fist. Its body is composed of a translucent membrane through which can be made out a structure which resembles a miniature human brain. Four grasping legs with tiny claws emerge from the base of the Companion, which allow it limited mobility and the ability to cling to its host carrier.

The purpose of the Companion is act (to its host) in the way that its name suggests. It has been exactly designed to act as a confidant and even friend to a single human carrier. The host relays any information he wishes verbally, and the Companion is free to reply with advice, analysis, or stored information (the creature also has eidetic memory, and the capacity to cross reference information in complex computer-like fashion) in a low, cultured voice. The GM is encouraged to give the creature an engaging and interesting personality.

The Companion is different from a brain bud in that it is separate from the carrier's brain, in fact a separate brain completely, albeit very small. The reason such miniaturization is possible is because the Companion is the distilled essence of a normal human mind, without excess unused gray matter.

SYMBIONT MOSS

There are various types of symbiont mosses. As the name implies, in exchange for living space and nutrients from the host's body, each type of moss will provide some special benefit to its host.

Symbiont Moss, in its pre-application stage, grows on special lengths of nutrient tissue which is easily rolled up and stored. The potential host need merely unroll the storage tissue, and rub it against his exposed skin. Immediately, the transferred colonies (some stays on the storage tissue, thus replenishing the supply of Symbiont Moss) of moss will begin to grow on the surface of the host's skin, until the host is completely covered in a thin vegetative skin (complete coverage requires 2d10 hours), excepting eyes, mouth, and nostrils (unless otherwise specified). In most cases, the layer of moss is quite thin, so the host is recognizable to his friends, but has acquired a rough green skin condition.... To remove an active colony of Symbiont Moss, one need only apply a special moss digestion enzyme which normally is available with the storage tissue. The enzyme will permeate the culture, and cause it to shed within 1d10 hours. The specific benefits of each form of moss are listed below. Symbiont Moss will grow over grafts, buds, and other Softech items quite readily.

Stasis. Once this colony completely covers its host, it will induce an extreme form of hibernation, were the host's biological functions will proceed at a fraction of their normal rate. A host which has grown stasis moss can remain in hibernation for up to 10 years before nutrient depletion causes the moss to die naturally. At the end of this time,

SCIDE BUG DETONATION EFFECTS		
Mark #	Detonation Radius	Effect*
1	2 meters	B Heat critical
2	4 meters	C Heat critical
3	8 meters	D Heat critical
4	16 meters	E Heat critical
*Use Acid criticals if RMC III is available.		

the host will have physically aged 1d10 months. If a reliable intravenous feeding system could be hooked into the host to supply nutrients at a slow steady rate, the stasis could conceivably continue for centuries. The stasis is ended prematurely by removing the moss, however the host has no control over the length of stasis, and must rely on planning or associates to end the hibernation.

Nutrition. This colony of moss provides its host energy through photosynthesis. If the host remains in the sun for a minimum of 1 hour per day, he will not need to eat for a period of 1 month, after which nutrition is essential to replenish vital vitamins and proteins. The moss also performs water recirculation. The host will need to consume a liter of water per week to maintain the moss.

Chameleon. This colony of Symbiont Moss will alter its hue to conform to whatever color and shade is predominant in the hosts immediate vicinity. The color changes of the moss are rapid and dynamic, allowing the host to move at a Dash past surfaces of uniform color and texture. Against uneven surfaces which vary greatly in hue and conformation, the host must proceed at a walk to allow the moss to keep pace. This translates into a +100 bonus to the host's Stalk and Hide skill.

Regeneration. All Symbiont Mosses send countless tiny rootlets into a host's skin, but this specially designed moss utilizes this property to rapidly "re-knit" cuts and wounds that the host sustains. Pierced flesh is pulled closed by the interwoven rootlets, and the flesh is prompted by chemical messengers to release clotting factors and other natural healing agents at unnaturally accelerated rates. Thus, the host regenerates hits at a rate of 1 per round. It can even heal bleeding wounds at a rate of 1 hit of bleeding per minute (e.g., a wound bleeding at 3 hits/round would take 3 minutes to completely heal up). The moss can sustain this type of activity for a maximum healing of 100 hits per 12 hour period, before it must rejuvenate itself with rest (12-hour rest cycle).

Acid Neutralizer. This type of moss has the useful property of being completely unaffected by dangerously low pH. When acid contacts the exterior of this moss, it immediately secretes a correspondingly strong base (high pH), which neutralizes the acid. Thus, a host would be basically invulnerable to acid. Prolonged immersion would finally kill the moss after 20 minutes.

Memory Moss. A host sporting this version of Symbiont Moss can elect to set up "observation posts." The host does this by touching any surface he desires with a mossy finger. Within 10 minutes the spot touches will have grown up a small colony of moss 1 cm in diameter. At this point the new colony will begin to passively adsorb all nearby environmental fluctuations, that is, it will record all that happens about it in a 15 meter radius for a period of 24 hours. The moss records all vibrational and electromagnetic waves which impinge upon it, so a fairly detailed account of events which transpired near the moss is produced. If the host returns within 72 hours and again touches the moss colony he set, the memory of the recorded 24 hour period will be downloaded into his mind via direct mossy filamentous connection with his nervous system. The host can dispatch only 1 observation colony per day.

Thermo-regulation. Moss of this sort offers tremendous regulation of body temperature. The moss provides an internal environment of a steady 21 degrees Celsius (70 degrees Fahrenheit) by radiating excess heat, and insulating against severe cold. The peculiar biochemistry of the moss allows it to withstand nearly any extreme for up to 7 days, however, directly applied flame will kill it within 10 rounds. A host can reduce heat related criticals by 2, but three such uses will kill the moss.

Vacuum Adaptation. A triumph in the art of Softechology! By combining strains of several varieties of previously developed mosses, as well as genegineering a few completely revolutionary characteristics, a strain of Symbiont Moss was developed which would allow a host to survive the rigors of interplanetary space!

A host can survive a stint of 7 solid days in space without the intake of food, water or oxygen. This is possible through a complex interaction between photosynthesis and a recirculation carried out by the enveloping moss.

This moss grows much thicker than other varieties, layering with bands averaging 1 cm in thickness, with a total thickness of about 4 cm. These thick interwoven layers provide an airtight seal to the surrounding vacuum, as well as thermo-regulation, regeneration, and nutrition to the host. A special transparent (variably polarized) membrane grows over the host's eyes.

Any slashes or punctures to the moss re-knit in 1d2 rounds, while large patches of moss which are torn away will take 1d10 rounds to re-knit. A host exposed to the vacuum of space in this manner will take an E vacuum critical every round he is so exposed. Any bleeding criticals will bleed at four times the normal rate. Once the breach in the moss has re-knitted, excessive bleeding and criticals will cease.

QUOR (ORGANIC PROPULSION UNIT)

When one braves the dangers of outer space protected by Symbiont Moss of the spacefaring variety or by more mundane means, it only follows that some form of aid will be required to allow movement. Jet packs could be used, or the more economical organic propulsion unit. Dr. Quor, an eminent Softechnician, long ago genetically engineered creatures that not only were able to endure the rigors of space, but to be at home within this hostile environment. These organisms, called Quor (singular and plural) were originally developed from reptile-like sea creatures who had the ability to propel themselves efficiently in a three-dimensional space using jets of water. Quor were greatly bio-modified so small bursts of internally-synthesized gas are vented strategically to provide maximum effective movement in weightless conditions. Quor vent the gas efficiently to use the minimum amount of reaction mass for the maximum amount of accuracy in arriving at a desired location. They can accelerate at 2 meters/second per second. Thus, if a Quor vents for 10 seconds, it will be moving at 20 meters/second (200 meters/round). Reaction mass could conceivably be vented in a steady stream for up to 10 minutes before exhausting the Quor's internal reservoir (allowing a fairly respectable speed). However, this is very dangerous, because it will take an equal

amount of vented gas to just slow to a standstill, to say nothing of returning to the point of origin. Many novices are lost in space when they have unwittingly used up all the gas stored in their Quor, and spiral off into the void on their last heading. It takes a well-fed Quor a period of 8 hours of digestion to re-fill its internal reservoir. The organism synthesizes this gas as part of its normal biological functioning. Its diet consists of specially adapted mosses which have been seeded in many star-systems, astroidal zones and on small moons. This food-moss has been designed to grow on the readily available minerals which are often mined from such places. Many such seeded areas have developed localized ecosystems, some of which have become highly evolved....

The Quor have two sets of arms, which on mental command will grasp any user and hold him along the Quor's length (approximately 2 meters). Commands for movements are received telepathically. The Quor also relays its personal status to its rider in regular intervals telepathically. Additionally, Quor have mental links with others of its kind, allowing riders to communicate with one or more other Quor riders. The limit of this communication is 100 meters.

Quor possess only animal intelligence, and were developed solely to aid humanity. However, if the organism is not fed adequate amounts of food moss by its owner, it may strike out on its own in search of food. Many have done just that and reside in unregulated areas of food-moss infestation. These wild Quor have become an important component in space ecosystems, and in some cases have provided a link for tremendous evolutionary advances....

For more statistics on Quor, see the Space-Adapted Lifeforms section. Keep in mind that the DB of a Quor rider is equal to that of the Quor itself.

10.5 TOOLS OF THE SOFTECHNICIAN

Bio-Engineering is a well-developed field of specialization, and utilizes standard techniques and reagents to engender new Softech organisms. Many of the components of Bio-development are interesting in their own right, and some have actually evolved to the point of limited use outside the Softechnicians laboratory.

ORGANIC PHASE INDUCERS

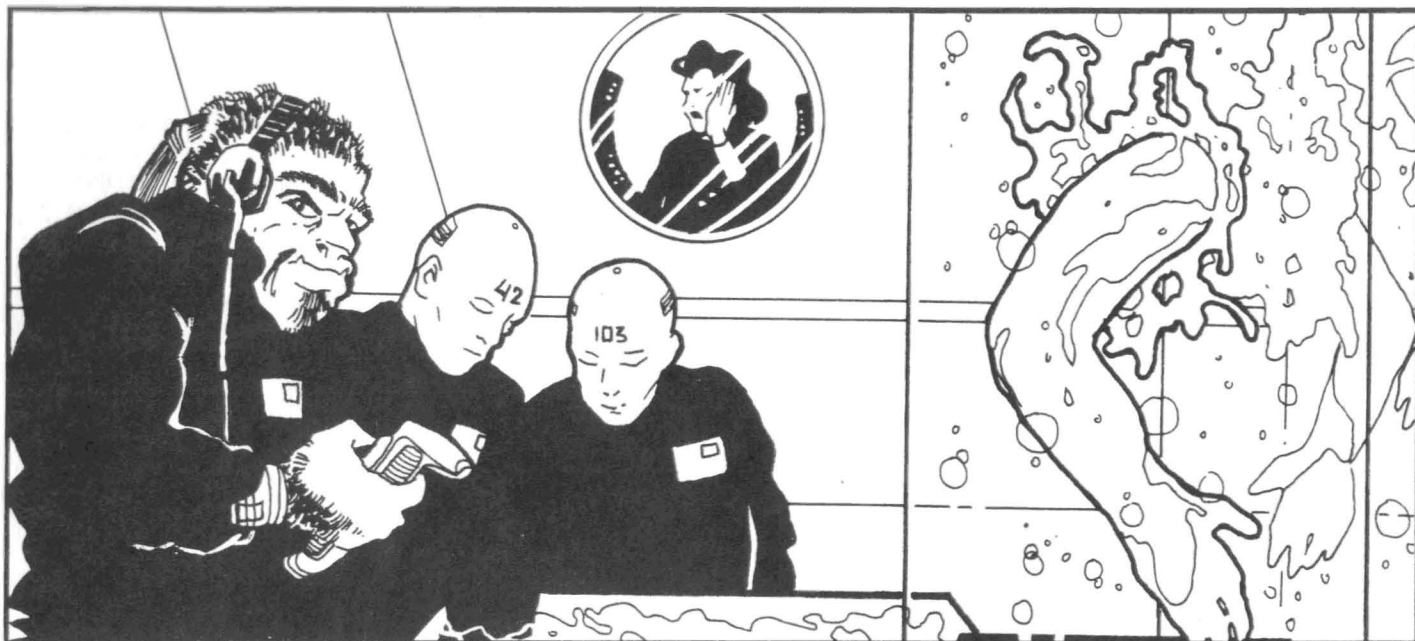
A complicated device, this neuro-field inducer has many parts. A small, portable sampling unit can detach from the main unit, small enough to fit in the palm of the hand. With this, tissue samples may be taken from organisms, even from living organisms (this may or may not cause severe mental trauma, GM's choice). The sampler, when connected back to the main unit, will inject the sample into the inducer, where it will be broken down and completely analyzed for a complete genetic blueprint of the mental and physical characteristics of the organism sampled. Alternatively, plasmids freshly taken from a Scribganism (Genomic Library) could be injected with the sampling unit. The inducer can hold only 1 genetic blue print at a time.

The main body of the inducer is an irradiation chamber. Any organism placed within it will have imposed upon its own genetic material the template stored within the inducer by a strong bio-electric field. Non-prepped organisms within the field would suffer little more than a headache, but those which had been properly treated with Kinetic Mutation Accelerator (see below) would develop the mental or physical structures which are being forcefully imposed upon it within 3d10 hours. There is a 20% chance of the organism dying outright.

A workstation is attached to the inducer, where novel genetic designs can be programmed in. The possibilities with this device are enormous, and still being explored by many eager Softechnicians.

KINETIC MUTATION ACCELERATOR

A small ampule of this orange colored reagent is all that is necessary to cause random, localized mutation within a living organism. Organisms which are not injected under the proper conditions will die as it slowly degrades into an organic puddle of goo over the course of 3d10 hours. An organism injected with this reagent which is also in-line with an Organic Phase Inducer (see above) will undergo extremely rapid mutagenic growth, following the templates imposed by the Inducer. A particular new growth form could be reached within 3d10 hours in this way.



SOFTECH EQUIPMENT

	Mass	Cost
Hive Eye	0.2	1000
Hive Slayer	0.2	2300
Cloaking Cytoskeleton	2.5	3100
Comm-lobes	0.1 each	950 (for 2)
Dreambud	0.4	750
Abducer Bud	0.4	7500
Language Bud	0.3	5000
Skill Bud	0.4	1000/+5 bonus
Psion Bud	0.5	2000/level
Mood Bugs	0.1	1000
Portapedes	1200	3400
Halo Moths	0.1 each	1800 (for 10)
Arachnassasin	0.1	10000
Scribganism	1-2	2900
Orgmoid (10 cm)	1	2000
Orgmoid (1 meter)	400	8000
Orgmoid (2 meters)	1000	20000
Orgmoid (3 meters)	2000	50000
Orgmoid (battlemoid)	3800	150000
Morph Pods	75	10000
Guard Morph	100	80000
Baffle Frog	0.8	3400
Waterwog	1	1000
Suicide Bug (level 1)	10	2500
Suicide Bug (level 2)	50	7500
Suicide Bug (level 3)	350	12000
Suicide Bug (level 4)	1000	50000
Companion	1.6	2000
Symbiont Moss (Stasis)	0.1	2800
Symbiont Moss (Nutrition)	0.1	3000
Symbiont Moss (Chameleon)	0.1	3600
Symbiont Moss (Regeneration)	0.1	15000
Symbiont Moss (Acid Neutral.)	0.1	2000
Symbiont Moss (Memory)	0.1	7500
Symbiont Moss (Thermo-reg.)	0.1	6000
Symbiont Moss (Vac-Adapt)	0.1	10000
Quor	500	12000
Organic Phase Inducer	12	11500
Kinetic Mutation Accelerator	0.2	8400

11.0 MISCELLANEOUS OPTIONS

11.1 FACTS ABOUT FORCE FIELDS

Force fields are barriers constructed of pure energy to prevent materials and/or energies from passing. There are a variety of types of force fields, some fairly common ones being personal energy shields (e.g., Barrier shields, Velocity shields, and Deflector shields). The power requirements of a force field will vary by its size, type, and strength (DB). A shield could be powered by a power cell or cartridge easily enough, but larger, more powerful fields may require reactors (Microfusion or larger, based on just how large the field is). A field of 1 square meter or less may use a power cell, 3 square meters must use at least a cartridge (e.g., a shield which envelopes the body), 1000 square meters or less may use a microfusion

reactor, while anything larger must use a full scale reactor or multiple microfusion reactors. (e.g., a force field protecting an entire city). To determine the area of a force field, it is important to know that it is two-dimensional. Force fields lack depth, so the area of coverage is in a two-dimensional plane.

There are four types of force fields: semipermeable, permeable, solid, and energy specific. The semipermeable field allows some materials to pass and others not to pass. Typically, solid materials and high energy concentrations are prevented from passing. This allows for gas exchange, visual observation, and sonic transference. This makes the semipermeable field a favorite for containing prisoners. The permeable force field is the least common of them all. It is used to alter nonmaterial and "nonenergy" fields (e.g., Magnetic fields, Gravitational fields, etc.). Material objects and normal energy forms pass through the field unhindered. In fact, a person would not know that he had passed through it. The solid field stops all material and energy forms from passing through it. Anything behind a solid

field is completely cut off. In fact, a solid field appears as an opaque sheet of metal with poor luminescence. The fourth type of field is the Energy specific force field. This field works against energy forms such as light, sound radiation, lasers, plasma, etc. more often focused toward the concentrated energy forms. Energy forms are dissipated over the surface of the field and sometimes reflected back at the source (25% chance of a random reflection, 10% chance of reflection directly back at the source).

The defensive capabilities of force fields are great. They may be broken down by undermining their frequency of operation, which requires special tools and Crime Technics skill. Otherwise, they must be physically broken down by assault on the field. However, force fields regenerate themselves instantaneously as long as their power is uninterrupted. To bust a hole in a field, an attack must do an amount of hits of damage equal to the field's defensive capability. For every 10% of the field's total hits exceeded by the attack above and beyond the shield's total, the field will remain open for 1 round.



Example: A shield with 100 hits of defense would have to suffer 100 hits in a single round to bring it down. However, it would instantly regenerate itself. For every 10% of the total hits done above 100 hits, the field will remain open 1 round. Therefore, if the field suffered 130 hits in a single round, it would require 3 rounds to regenerate itself. 130 hits - 100 defensive hits = 30. $30 = 30\%$ of the field's total hits. 1 round for each 10% means that $30\% = 3$ rounds

Typically, a force field powered by a power cell (s) will have a maximum defense of 50 hits. If one is powered by a cartridge (s), the maximum defense would be about 100 hits. A microfusion reactor devoted to the field could provide 1000 hits, while a full reactor could provide indefinite defense.

Normally, walking into a force field designed to stop you will provide a feeling of a sharp (but painless) shock sending a numbing tingling sensation up the appendage or over the body. The feeling is quite discomforting. If the power is available, the force field can be armed with a true shocking system. If this is done, the field will attack, as a Shock Bolt, anyone or anything that touches it which is not supposed to pass. The total defensive capacity of the field is determined, and 25% of the total is used as an attack bonus. (e.g., A field with a defense of 100 which is powered to shock anything that touches it, will attack with a +25 Shock Bolt.) A field powered by a power cell has a maximum attack of 90. A field powered by a cartridge has a maximum attack of 110. A field powered by a microfusion reactor or better will have no limitations. In fact, a full scale reactor could up the power high enough to use attack charts from *Armored Assault* and *Star Strike* for vehicles and craft coming into contact with the field (e.g., an excellent means of protecting a city from an attack, or even a planet if that many reactors are available to power the shield.)

Note: The Maximum Attacks referred to above for power cells and power cartridges (90 and 110) are to be used as total results. That is, no attack initiated by a power cell could exceed a total of 90 on the Shock Bolt Chart for its damage inflicted. In the same respect, no attack initiated by a power cartridge could exceed a total of 110 on the Shock Bolt Chart for its total attack for damage. In order to overpower a field powered by a cell or cartridge, an extra cell or cartridge must be available. A single cell or cartridge cannot provide enough power to operate the shield and provide the extra power to attack objects coming into contact with it.

11.2 GRAVITY AND MANEUVERS

One of the factors often ignored in science fiction is the effect of gravity on the PC. It is not likely that gravity will be the same everywhere one goes. However, colonies are bound to stay within a very narrow range for comfort and practical reasons. Higher gravity might hinder proper physical development before and after birth. Although lower gravity will not hinder development, it will make the victim extremely vulnerable to higher gravity (muscles are not likely to be exercised or developed to their required form.) Under such conditions, the PC would not be able to move in normal gravity. His legs would give out from under him if he stood, and the bones might be shattered by the force. Gravity levels are set by the standard gravity of Earth (level 1). Colonies are not likely to develop on a world where gravity is greater than 1.2x standard gravity. (i.e., Human colonies, each race will have a range of gravity of its own, some identical, some not).

How to handle gravity is a tough question. The answer, you guessed it, involves modifiers and adjustments in maneuver difficulty. The method is not difficult, but can be confusing. Gravity is divided into two types of increments: the level and smaller units. Each level is a multiple of standard gravity (e.g., 3 levels is 3x standard gravity). The area between levels is divided into ten smaller units (e.g., there are 10 units between level 2 gravity and level 3 gravity). The levels of gravity are used to determine the increased difficulty level and provide an additional

maneuver penalty. The smaller units are used for determining maneuver penalties. Once the level of gravity is determined, count backwards from that number adding all of the levels together (e.g., For level 3 gravity, you get a result of 6 because $3 + 2 + 1 = 6$.) This result is the number of difficulty levels a maneuver is increased by. Therefore, a Routine maneuver performed at 3 times standard gravity would be done as an Extremely Hard maneuver (6 levels higher than Routine). In addition to this, there will be a modifier of -5 for each difficulty level advanced. In the example with 3 levels of gravity, any maneuver is advanced 6 difficulty levels which means there will be -30 for any maneuver. If a difficulty advances beyond the Absurd level, then for each advancement beyond Absurd, there is -10 rather than the -5 of lower levels.

What about the smaller units of a level? Each of the smaller units of a gravity level is a penalty of -10. (e.g., at 1.5 gravity there is no difficulty modifier for the level of gravity because it is standard. However, the .5 represents 5 additional smaller units which means the maneuver will be performed at -50). Suppose a PC is under the influence of 1.5 gravities and wishes to perform a Medium moving maneuver. The difficulty will remain Medium, but the maneuver will be performed at -50 because there are an extra 5 smaller gravity units influencing him. In the same fashion, if the influencing gravity were 2.4, there would be a penalty of -40 for the extra 4 smaller gravity units. However, there is a higher than standard gravity level also (2). This means that the Maneuver difficulty will be increased by 3 levels (counting backwards from 2 is $2 + 1 + 0 = 3$).

Not to mention that there will be -5 for each difficulty level advanced for an additional -15 modifiers. This means that to perform a Medium maneuver at 2.4 gravities, the PC must do the equivalent of an Extremely Hard maneuver at -55. (3 difficulty levels above Medium is Extremely Hard and $40 + 15 = 55$). Other modifiers will also be applicable, but these are all of the gravity-oriented modifiers.

Note: The GM may find it necessary to determine standard gravity separately for characters in his group which are from a slightly different gravity Homeworld. However, this is his option; he may feel that the difference will be too minimal or too complicated to warrant attention.

11.3 VEHICULAR MANEUVER ENCOUNTERS

While driving or flying, it is common that unexpected obstacles and other hazards make the trip dangerous. Whether this requires changing lanes or serious evasive maneuvering, seldom is a high-speed drive or flight completely uneventful. Some system, based on encounter rolls, is clearly in order. The Vehicular Maneuver Encounter Chart is used in conjunction with sections 22.0, 23.0, and chart 22.2 in the *Space Master Player's Book*.

GMs wishing to incorporate random vehicular maneuvers in their play need only locate the proper column on the following table. The chance of an encounter occurring and how often the GM should roll are indicated. When an encounter results, roll on the table to determine the severity of the vehicular maneuver which must be made by the pilot or driver. Failure can represent many contingencies, from running over a pedestrian to a collision, but usually involves impacting with some obstacle.

If GMs desire, an encounter need not result in a vehicular maneuver. The "% LEO" row suggests a percentage chance that the encounter is with Law Enforcement Officers. When this occurs, even innocent PCs are "pulled over" where LEOs conduct a general search of their vehicle (unless warrantless, suspicionless searches are considered illegal in the culture in question). Any legal transgression will be noted and citations delivered (GM discretion).

The "*" row denotes special circumstances. If the GM deems that the vehicle is prone to breakdown (for whatever reason), the "*" row is consulted. The percentage listed is the chance that a breakdown (malfunction) will occur during that encounter period—particulars are up to GM's discretion.

11.4 RADIATION IN SPACE MASTER

The following standard notations for the reference to radiation doses are used in this section:

Roentgen (r): the unit of exposed dose; equivalent to gamma or x-ray exposure producing one electrostatic unit of charge in 0.001293 gm. air. One r is absorbed at 87 ergs/gm in air, or 98 ergs/gm in water or soft tissue.

Rad: the unit of absorbed dose. 1 rad equals 100 ergs/gm of irradiated material.

rem: Roentgen Equivalent, Man. Unit of exposed dose for medical references.

1r ≈ 1Rad ≈ 1rem. For most purposes, 1 rad fallout will likely produce more than 1 Rem, but less than 2 Rem.

μr: Milliroentgen (1/1000 roentgen).

BLAST RADIUS

Per *Star Strike* (sec. 8.5): When a (nuclear) warhead detonates, it produces five (5) Blast Radii which are like concentric spheres radiating out from the explosion. The 1st Blast Radius is closest to the detonation, the 5th is furthest away. To determine the Blast Radii of a nuclear or M/A detonation, consult the Nuclear or Matter/Antimatter Blast Radii Chart.

TYPES OF NUCLEAR WEAPONS

Fission/Fusion Devices (NU): These are standard nuclear fission and fusion weapons. Their explosive effectiveness ranges from 10 Kiloton to 500 Megaton.

Enhanced-Radiation Devices (ER): These are typically low-yield fusion devices, designed to produce a comparatively small physical blast, but saturate an area with a single burst of highly lethal radiation. They are available in ranges of 10 Kiloton to 1 Megaton. These devices generally explode above the ground, and cause very minimal structural damage and almost no fallout.

Annihilation (Antimatter) Devices (AM): The most devastating of all weapons, these weapons produce the worst and most long-lasting damage. They are available in explosive ranges from 1 to 1,000 Megatons. *Ownership, design, and creation of Annihilation devices by any group, power, or province other than the Imperial military forces is strictly forbidden, and carries the harshest of penalties.*

SHORT-TERM EXPOSURE

The dosage in Rem received depends on which blast radius the exposed target is in and what (if any) cover he has. Dosage received in each blast radius and likely medical consequences (if applicable) are covered in the *Radiation Dosage Effects* chart. Occupants of the 2nd to 5th blast radii who are fortunate enough to find secure underground cover (heavy bunkers, not normal buildings) receive only the dosages they would if they were one blast radius farther away (i.e., a target in an underground bunker in the 3rd blast radius would only receive the dosages applicable to the 4th blast radius). Occupants of the 1st and 2nd blast radii of an Enhanced Radiation device receive 50% additional dosage (i.e., read short-term dosages of 200r as 300r).

FALLOUT

Fallout consists of dust, water, or other materials irradiated by the detonation of a nuclear device, and is usually scattered over a wide area. Maximum fallout is produced if the detonation is just below ground level; detonating the device in the air often produces both more structural damage and a greater initial "flash" dose, but fails to hurl the enormous cloud of fallout material in the air. Enhanced-radiation devices are *always* air-burst weapons, to provide the maximum possible flash area. The fallout produced by these so-called 'clean' devices is sufficiently minimal that troops can usually advance into the affected area safely within 1 hour/kiloton detonated.

The 1st and 2nd blast radii of nuclear and annihilation devices are the areas producing 90% of the resultant fallout. Fallout exposure is equivalent to 1/5 of the short term Rem dosage in the 1st blast radius, and 1/10 of the short term Rem dosage in the 2nd blast radius, taken each day of exposure. The affected areas will be 'clean' in one standard year/Mark#, with dosage effects tapering off accordingly. The fallout produced by the 1st blast radius will be scattered by the winds, and will also contaminate any area they settle on (GM's judgement, based on prevailing wind conditions) with a maximum intensity of 1/2 the dosage of the 1st blast radius. If the device is exploded as an air burst, rather than as a ground burst, the fallout intensity will be limited to the intensity of the 2nd blast radius only.

VEHICULAR MANEUVER ENCOUNTER CHART

(based on normal travelling speeds)

% Chance Check Every	Alleyway 30% 1 min.	City Streets 10% 5 min.	Suburban Streets 15% 10 min.	Rural Streets 20% 20 min.	Highway 25% 1 hour	Crowded Waterway 15% 5 min.	Moderate Waterway 10% 30 min.	Open Waterway 5% 2 hours
01-20	Routine	Routine	Routine	Routine	Routine	Easy	Routine	Routine
21-30	Routine	Easy	Routine	Routine	Routine	Easy	Easy	Easy
31-40	Easy	Easy	Easy	Routine	Easy	Light	Easy	Easy
41-50	Easy	Light	Easy	Easy	Easy	Light	Light	Easy
51-60	Light	Light	Light	Easy	Light	Medium	Light	Light
61-70	Medium	Medium	Light	Light	Medium	Medium	Medium	Light
71-80	Hard	Medium	Medium	Light	Hard	Hard	Medium	Medium
81-90	Hard	Hard	Medium	Medium	Very Hard	Hard	Hard	Medium
91-95	Very Hard	Very Hard	Hard	Hard	Ext. Hard	Very Hard	Very Hard	Hard
96-99	Very Hard	Ext. Hard	Very Hard	Very Hard	Sheer Folly	Ext. Hard	Ext. Hard	Very Hard
100	Ext. Hard	Sheer Folly	Ext. Hard	Ext. Hard	Absurd	Sheer Folly	Sheer Folly	Ext. Hard
% LEO *	5% 10%	20% 10%	25% 10%	15% 10%	10% 10%	20% 10%	15% 15%	10% 20%

% Chance Check Every	Crowded Airspace 10% 5 min.	Open Airspace 10% 1 hour	Orbital Space 20% 4 hours	Interplanetary N-Space 15% 1 (Lt) Day	Interstellar N-Space 10% 10 (Lt) Days	Intergalactic N-Space 5% 100 (Lt) Days	Hyperspace/ Exo-Space 5% 1 (Lt) Year
01-20	Routine	Routine	Easy	Routine	Routine	Routine	Easy
21-30	Easy	Easy	Light	Easy	Easy	Easy	Light
31-40	Light	Light	Light	Light	Light	Light	Medium
41-50	Light	Light	Medium	Medium	Medium	Medium	Hard
51-60	Medium	Medium	Medium	Medium	Hard	Hard	Very Hard
61-70	Medium	Medium	Hard	Hard	Hard	Very Hard	Ext. Hard
71-80	Hard	Hard	Very Hard	Hard	Very Hard	Ext. Hard	Sheer Folly
81-90	Very Hard	Hard	Ext. Hard	Very Hard	Ext. Hard	Sheer Folly	Absurd
91-95	Ext. Hard	Very Hard	Sheer Folly	Ext. Hard	Sheer Folly	Absurd	Insane
96-99	Sheer Folly	Ext. Hard	Absurd	Sheer Folly	Absurd	Insane	Phenomenal
100	Absurd	Sheer Folly	Insane	Absurd	Insane	Phenomenal	V-Impossible
% LEO *	15% 10%	10% 20%	10% 30%	5% 20%	1% 25%	0.1% 30%	0% 35%

DIFFICULTY MODIFICATIONS

Routine	+30	Easy	+20	Light	+10
Medium	+0	Hard	-10	Very Hard	-20
Extremely Hard	-30	Sheer Folly	-50	Absurd	-70
Insane	-100	Phenomenal	-150	Virtual Impossible	-200

NUCLEAR OR MATTER/ANTIMATTER BLAST RADII CHART

Mark# of the Nuclear or M/A Warhead	Megatons	1st Blast Radius	2nd Blast Radius	3rd Blast Radius	4th Blast Radius	5th Blast Radius
6-10	10-50 KT	Target Hex	1 km	2 km	4 km	8 km
11-20	51-99 KT	1 km	2 km	4 km	10 km	20 km
21-30	1-50 MT	2 km	4 km	8 km	25 km	50 km
31-40	51-150 MT	4 km	8 km	16 km	50 km	100 km
41-50	151-300 MT	8 km	16 km	32 km	100 km	500 km
51-60*	301-500 MT	16 km	32 km	64 km	200 km	1000 km
61-75*	501-750 MT	32 km	64 km	128 km	400 km	2000 km
75-100*	751-1000 MT	64 km	128 km	256 km	800 km	4000 km

*—Mark#s 51+ (500+ Megatons) are only available as Matter/Antimatter weapons, and most ships (except the Imperial Dreadnoughts) are simply too small to carry a delivery system large enough to accommodate them. What few of these weapons exist are usually kept in orbit, to be delivered from a permanent orbital launch platform. Rumor has it that the Idorians and the Snee are the only 'civilized' races to have ever kept these weapons around as a permanent part of their arsenal.

RADIATION DOSAGE EFFECTS

Cumulative Exposure (in rems)	Blast Radius	Medical Outlook	Notes
20 or less	—	None	No noticeable effects from single exposure of this dosage.
75	5th	Mild	Smallest dose causing vomiting on day of exposure in 10% cases.
100	5th	Mild	Smallest dose causing epilation after 2 weeks in 10% cases. Nausea in 30% cases.
150	4th	Mild	Nausea in 70% cases.
200	4th	Mild	Largest dose not causing illness severe enough to require medical care in majority of cases.
300	3rd	Moderate to Grave	50% + vomit. More than 50% survive with chances better for those receiving smaller doses. Usually changes in Blood Count during 1-3 week latent period after exposure. Epilation and illness due to damage to blood forming organs in 50%.
400	3rd	Grave	Median lethal dose. Fatal to 50% in 2-12 weeks. Illness notably more severe with increasing dosage. Initial illness longer, latent period shorter. Intestinal damage possible in 50%+ cases. Severe illness due to Gastro-intestinal tract damage. Survival unlikely. Fatal to 80% in 2-8 days.
500	2nd	Grave to Lethal	
600	2nd	Lethal	
2000	2nd	Lethal	Fatalities 100% in minutes to day due to central nervous system damage.
3000	1st	Lethal	Fatalities 100% in seconds to minutes due to central nervous system damage.
4500+	Ground Zero	Instantly Lethal	Death instantaneous due to burns and massive central nervous system damage.

LONG-TERM RADIATION DOSAGE CHART

$\mu\text{r}/\text{Hr}$	=	rem/hr	=	rem/day	=	rem/week	=	Rem/month
20	=	.020	=	.5	=	3.5	=	15
10	=	.010	=	.25	=	1.75	=	7
2	=	.002	=	.05	=	.35	=	1.5

RECOMMENDED MAXIMUM DOSAGES

5 rem/year; 3-6 rem/13 week period and 1 single 25 rem dose every 5 years;

Mild leucopenia produced by single dose of 50 rem or 0.2 rem/week for 117 weeks; Recommended .2 rem/day as tolerance dose.

Example: A Mark50 Antimatter device is exploded in an air burst above a planetary surface. All present within the 1st blast radius the day after detonation will take 600 rems/day of exposure. All present within the 2nd blast radius the day after detonation will take 200 rems/day of exposure. The area will remain contaminated for no less than 50 years. The resultant fallout will provide 100 rems/day of exposure wherever it settles.

LONG-TERM EXPOSURE

Several conditions may produce minimal radiation exposure on a long-term basis without the introduction of a holocaustic nuclear event. Faulty reactor shielding, exposure to certain naturally-occurring ores, and similar effects may produce a slow accumulation of rem dosage. This more insidious (but no less lethal) rem accumulation should be treated the same as daily exposure to the fringes of a fallout area. The maximum 'safe' rem dosages are shown in the *Long-term Radiation Dosage Chart* and the *Recommended Maximum Dosages Chart*. Please note that these figures only show the safe dosages for humanoid races; some alien races (such as the Snee) may be able to tolerate a much greater dosage without ill effects. All radiation doses are *cumulative* until treated (a person with an untreated 200 Rem dose who receives an additional 300 Rem exposure suffers the same effects as a person who receives a single 500 rem dose).

11.5 LIFE IN SPACE

With the advent of space-based ecosystems (see below), the chance for extravehicular-activity can dramatically increase for player characters. Adventurers in the black vacuums of outer space have a completely different environment to cope with than what one might find on a planetary surface or within the confines of a spacecraft. What follows are some general pointers for GM's who wish to bring their PCs into the icy depths of space, *sans* space ship. These rules can either be considered optional or be integrated into already existing guidelines for exposure to space.

Initially, there is of course no atmosphere or pressure. That means that a PC or NPC will need some sort of pressure suit which also provides a breathable atmosphere (either a conventional suit or an organic covering). Those who suddenly find themselves in a hard vacuum without protection (perhaps due to being forcefully ejected from an airlock...) have little chance of survival, but will not instantly explosively decompress as popularized falsely in fiction. Skin will only redden and puff a bit. However, characters thrust into space will take an A vacuum critical every round that they remain unprotected. Also, the air in their lungs will rush out in one continuous exhalation, which means unconsciousness in 1 + 1d10 rounds (modified by the character's Constitution bonus / 5). While space is amazingly cold, there is no air to conduct the heat which would normally rapidly leave a body in such temperatures, so damage from cold is also not as severe as one would first think. After 2 rounds, characters begin to take C cold criticals for every round that they remain unprotected. Additionally, any bleeding will be at x2. If the character makes it to safety anytime before death, all tissue damage will heal normally, and the experience will not cause any lasting physical harm.

In space, normal modes of transport are precluded. A PC in space will be at the mercy of both weightlessness and inertia, a potentially lethal combination. The GM needs to be aware that any sudden thrust or push, no matter how slight, against a more massive object, will send any unsecured character into a continuous vector outward, forever or until caught in the gravitational attraction of a nearby star or planet. A light maneuver roll should be required for every 10 minutes of unsecured activity on the surface of a ship or asteroid. Jet packs and the Softech developed Quor (see the section on Bio-engineered equipment) will allow "traction" while in space, and will be necessary to counteract the action-reaction scenario described above. The GM should always be aware of such physical laws, and incorporate descriptions of such during narration of events. For example, Grunt the Mighty (for some inexplicable reason...) drifts among an astroidal lifezone, protected by a thick growth of Symbiont-moss and "riding" a Quor. Even in this alien environment, however, Grunt still carries his trusty great-axe, and luckily so, because a massive predatory Sobibor seems intent on making Grunt its lunch. Grunt swings the axe (the arc of the swing reflecting the blinding intensity of the homestar)

and connects solidly with the Sobibor. The force of his blow sends Grunt spinning back, but his Quor almost instantly compensates by damping both momentum and spin with strategic vents of gas, allowing Grunt to continue his struggle. If the Quor were to be unresponsive or damaged, Grunt's own blow could have conceivably sent him spiraling out of control away from the scene of the conflict. It is certain that the Sobibor would pursue instantly...

Because there is no atmosphere in space, there is no medium in which sound can be transmitted. Therefore, unless the PCs have devised some alternative form of communication, GMs should be careful to only allow their players to communicate through hand signals. Utter silence is the damping blanket under which all activities occur in space.

Finally, because there is no atmosphere, there is no diffusion of diffraction of light through in space, other than that which is indirectly reflected off solid objects. The means the demarcation between light and dark are very often razor sharp, and anything obscured by shadow is, for most purposes, invisible in the visible spectrum. Unless some type of artificial or bio-luminescent light source is shone *directly* onto an object lying in a shadow-pool, that object will remain undetected. However, objects which give off their own illumination will be perfectly detectable.

SPACE-BASED ECOSYSTEMS (LIFEZONES)

The long black voids of space are often thought of as harsh, unforgiving, and hostile to all life. While this is true for life as we are commonly familiar with, space really only represents one more environment, albeit inhospitable, where the ordering influences of organic life can attempt to triumph over the forces of dissolution and entropy.

In addition to the rare, naturally occurring instances of life evolving and flourishing in the vacuum of space, the Softech industries of humanity have provided enormous raw material for the natural development of space-based ecosystems. The advent of life existing, even thriving in the barren wastes of space may surprise some, but looking at the origins of these ecosystems, it really was inevitable.

When Softechnology began to develop organisms capable of eking out an existence in an environment of weightlessness, vacuum, and sleet high energy particles, they were meant solely for the use of civilization. What wasn't realized was that at a certain threshold amount of space-adapted life forms, evolutionary forces would begin to push wild or unmanaged organisms into the thousands of unoccupied environmental niches available with the raw unfiltered energy of nearby homestars.

Most of the early ecosystems are based around astroidal fields and small moons where gravity is almost negligible, utilizing the vast mineral contents as raw materials for growth. The large majority of life forms in these areas are quite simple, and are composed of the food-mosses seeded through interplanetary regions for the feeding of Quor (personal organic propulsion units). Derivatives of the food-moss and mutated strains of the spacefaring Symbiont-Moss (an organic covering providing protection for planet based life forms) grow in thick patches kilometers in radius. Even though the high energy particles (X-rays, gamma-rays, etc.) which commonly sleet through such areas are lethal to humanoid, to the adapted mosses, it not only provides an energy source for their enhanced photosynthetic pathways, it also provides an incredible impetus for mutation and evolution. These mosses and moss-like derivatives convert mineral and energy to bio-mass, forming the base, the fundamental edifice of the lifezones. Without this level of the food-chain, all higher forms of space-adapted life would be unable to exist.

Existing upon the labors of the food-mosses are the next level of organisms which live within the lifezones: The grazers. These organisms consist of wild and untended Quor, and also of the many creatures which have evolved away from the Quor, to fill all the empty niches available in the space ecosystems. The grazers feed on the mosses and moss-derivatives, converting vegetative bio-mass to animal tissue in the same way that cattle grazing in a planetary pasture do. Lifezones are often thick with grazers in the same way an untouched wilderness on a planetary surface would be host to countless herbivores. New forms are constantly popping up, as others go extinct, in the natural cycles of the lifezones. Most grazers bear little resemblance to their original genetic stock.

Finally, just as the Quor and their distant cousins gain sustenance by preying upon the food mosses, predators of various and ferocious types have emerged to feed off the abundant grazers! In fact, there is substantial evidence to support the contention that lifezone predators may have actually evolved from grazers, being pushed down the evolutionary pathway by the enormous energy flowing from the homestar. Predators are sparsely scattered, and hunt wide territories in the same way as their planetary counterparts. It is good that they are rare, for many of these efficient beasts can prove very dangerous to humanity, as space-born predators see little to distinguish humanoids from other food sources...

Thus, life existing in the hard vacuum of space is a reality. Every few planetary orbits, it seems that some new type of exotic life form is reported around those stars that possess lifezones. Evolution continues to roar along at an accelerated rate in these dim voids, and exotic new forms are being pulled from nature's hat all the time (detailed in Space-Adapted Creatures section). Who can foretell what strangeness lies in the darks between the starlanes?

SELECTED SPACE-ADAPTED LIFE FORMS: VEGETATION

Food-Moss (Space Moss, Sposs)

Still in its unmutated form, this is the food source seeded through many astroidal zones for the feeding of Quor (personal organic propulsion units). This space moss is the underlying component of all the food webs in space-based ecosystems. Only it and its directly evolved descendants have the biological capability to slowly dissolve the minerals out of astroidal rock and synthesize it into bio-mass. Thus, food-moss continues to grow and spread from its original seeding points.

Mutated forms of food-moss are various. Morphologies and color often differs from the standard form, but they all share non-hostile behaviors, and are only important to other life forms by their ability to feed them. A few examples of common names for these are as follows: Space Weed, Red Lichen, Needle Moss, Mushroom Grass, etc..

Gamma Moss

To protect itself from herbivores, this layer of lumpy, green and gray moss will react violently to any living creature coming within 10 meters of the patch. The moss has concentrated specific isotope bearing minerals into crystal nodes, which it uses to "stockpile" solar radiation for times of darkness (when the astroidal surface faces away from the sun). When triggered by the proximity of life, many nodes, which are normally covered by the moss, will suddenly rise to the surface and discharge their stored radiation (the moss typically discharges only 1/4 of its nodes per attack). This has the effect of blanketing an area of 60 meters in radius with lethal radiation. Attack level of the radiation can be determined by the size of the moss patch: base level 5, increasing in level by 1 for every 5 cubic meters covered by the moss. Those missing RR will take radiation criticals. Those up to 10 meters will take an E, those between 10 and 20 meters distant will take a D, those between 20 and 30 meters will take a C, etc..

After a node has discharged, it will take 24 hours before the Gamma Moss can recharge it. In some larger patches, crystal nodes have been known to develop flawlessly, fetching high prices on the open Market, to say nothing of the interesting storage capacity inherent in them...

Glommer Fruit (Death Globes)

Unsuspecting herbivores (or anything else) which see these 3 to 6 meter diameter sparkling globes, growing from a 1 meter tall stalk, seemingly filled with a glowing jewel-like liquid, will be in for a rude shock if they actually make contact with it. The membrane of the globe will instantly adhere to the contact point, and seek to absorb that which touched it! Unless the victim has some way to brace itself (the gas vents of Quor are usually insufficient, though a powerful jet-pack might be), there is absolutely no way to prevent being absorbed through the membrane into the sac filled with highly acidic digestive fluids. Digestion is usually complete within a couple of hours...

Blows to the membrane merely cause that weapon to be absorbed, along with the wielder if care is not taken. The stalk is the most vulnerable portion of the globe, but massive discharges of energy or shrapnel will cause membrane degradation in the globe.

Often, strange indigestible items have found their way into the interior of the globes.

Needle Tubes

This type of space-borne vegetation consists of a mass of reed-like tubes surrounding a central gel filled sac about 3 meters in diameter, although larger specimens have been seen. Whenever movement is detected within 30 meters of the tubes, gas jets will propel barbed darts along the barrels of the tubes, in a sunburst dispersal pattern. All the barbs are connected to each individual tube by a thin but strong filament, thus the barbs trajectory only reaches up to a 3 meter radius from the primary organism. Due to the profusion of stinging projectiles, all creatures within 30 meters are subject to 1d10 +70 Entangle attacks. Those grappled have 3 rounds to untangle themselves or remove the barb before the rapidly retracting filaments bring the poor saps into contact with the viscous membrane which surrounds the gel filled digestion sac of the creature. When this occurs, the membrane sucks the nourishing morsel through in an obscene type of osmosis. The interior of the membrane is a highly acid digestive gel, wherein the prey is dissolved in a matter of hours. Many needle tubes have an interesting variety of non digestible items floating within its enzyme sac.

Once the barbs discharge, 1 hour is required for another charge of gas to be built up of sufficient pressure to allow the darts to fire again.

The membrane merely absorbs physical attacks. Energy weapons are necessary to harm it, clearing out all the reeds during the hour long recharge time would also render it harmless at a distance. Each reed tube is AT 5, Hits 2, but there are 100's of them.

Puff Stars

This space fungus which grows on tiny moons or asteroids has developed an effective way of propagating itself. It appears at a 3 to 6 meter roughly spherical spore bag, growing from a thin stalk at maturity. Puff stars build up an enormous charge of volatile gas, and when movement is detected within 300 meters, the Puff Star will detonate in a fiery burst! Its spore bag is filled with small (10 cm) star shaped seeds. These seeds are hurled through space at a tremendous, never diminishing speed. Within the first 100 meters, all creatures are assured of receiving a +120 small projectile attack. Every additional 100 meter increment in distance from the detonation point allows a cumulative 10% chance to avoid attack, i.e., at 300 feet, a target has a 20% chance to completely avoid an attack. If the seed does impact for any amount of damage, the sticky star seed will adhere instantly to that which

is struck. It is a very hard maneuver (strength bonus applicable) to pull the star seed off, and for those wearing Symbiont Moss for life support, it will tear a large patch away with the seed, leaving the character exposed to vacuum until the moss can repair itself. If the star seed remains attached to that which it hit, be it flesh or anything else, it will begin to let down rootlets within 1d10 hours. Once this happens, a new puff star begins to grow. No problem on an unliving surface, but against flesh it draws 1d10 hits in blood and nutrients per round. Any seeds which do not hit anything immediately will continue to coast through space at the initial speed imparted to it, perchance to find fertile ground thousands of years hence in another solar system...

SELECTED SPACE-ADAPTED LIFE FORMS: ANIMAL HERBIVORES

Wild Quor

See the Bio-engineered Equipment section for full details on Quor (really a personal organic propulsion unit).

Once a Quor has left its owner in search of food, it is difficult to regain their cooperation in the manner they were designed for. This is doubly true for Quor which were born wild within the lifezones. Any attempt solicit the services of a wild Quor telepathically will require a very hard maneuver roll (empathy and self discipline bonuses are applicable). If unsuccessful in regaining control, the Quor will bolt. It is a lucrative business for some to capture wild Quor and sell them at a profit.

Any physical attempt to restrain a Quor has a 50% chance of eliciting a violent response. A Quor can claw with both sets of arms, or, given adequate room to accelerate, it can ram with a +20 MA: strike, rank 4 (if available use *Claw Law* to determine a +20 Ram attack). Every meter/sec of velocity the Quor has attained will translate into an additional +1 attack. Therefore, a ramming Quor is nothing to sneer at if they have maneuvering room.

Wild Quor roam the lifezones in growing profusion, breeding and eating, giving rise to Quor young and strange mutated stock. If these mutated ur-Quor are able to breed, and bear young, *Viola!* Evolution has occurred, and will continue to...

Grazers

Any of a variety of non-hostile herbivorous animal forms, including Quor, are considered grazers. Shapes, sizes, colors, and behaviors may differ. Some commonly seen grazers are as follows:

Croppers, Mossclumpers, Weedmites, Tube Cattle, etc..

Many of these grazers can provide a fair nutrition source for humanoids whose activities bring them into lifezones for an extended period of time. Of course, grazers are really the staple of the space-adapted predators...

All grazers move through space in a similar manner as that described under the Softech Pseudo-Symbiont entry of Quor.

Thorndevil

This herbivore has developed an effective defense against many predators. It appears similar to a thick eel, sporting porcupine quills, between 6 and 20 meters in length. Attacking predators will find a seemingly unconcerned target, but that is due to the Thorndevil's behavior: it never makes the first move. It trusts to its strong AT to see it through any initial attack. Once attacked, however, it will whip its long body around the offending creature (if it is a close in attack), ensnaring it in a snug embrace. Treat the attack as a +150 Enveloping attack. If the target is successfully grappled, it will be completely immobilized by the coils of the Thorndevil (a sheer folly maneuver might allow a successful escape). Each successive round, the unfortunate takes a C crush critical, plus 1d10 B puncture criticals. This will continue very round until the trapped creature dies of the Thorndevil is killed.

Dromulhul ('droom-al-hool')

What strange chance allowing intelligent beings to arise in space is unknown, but strange as it may be, the Drom (as they are sometimes referred to) represent the minuscule fraction of thinking beings which live in the cold deeps of the void.

The main section of a Dromulhuln (the final n denotes singular) is about 3 meters in length, with propulsion orifices positioned as strategic points on its body to allow for movement (the Drom have the same basic movement capacity as Quor). The anterior portion of the body then slowly tapers to a prehensile tail-like tentacle, which by itself can reach lengths up to 4 meters (social standing among the Drom can in part be determined by tail length). A Dromulhuln uses the tail to anchor itself to objects or as a fifth limb. It has two sets of arms spaced about 1 meter apart along its main torso. Finally, the heads of the Drom resemble that of small featured humanoids, subtracting nose, ears, and hair. Communication be-

tween individual Dromulhuln is telepathic. They are also able to project into the minds and read the surface thoughts of other thinking beings, which is useful for communication.

The Dromulhul are a peaceful culture who cultivate small gardens on asteroids within the lifezones for their food and other specialized purposes. They live in the hollowed out interiors of giant blades of Mushroom Grass. Decoration is minimal, and is given over to cunningly cut windows in flowing shapes in the sides and tops of the blade houses, allowing in the glory and majesty of the surrounding stars. Furnishings consist of small projections and rings for a Dromulhuln's tail to find ready purchase. Crystal of various shades often adorns the walls, or floats freely through the domicile as delicate sculpture.

The Drom are much given to philosophy, and are often found gathered together in a dwelling lightly tethered to any and all surface areas, telepathically discussing the barbarous nature of anger, the songs of the stars, or the concept of Universal Unity.

While a peaceful people with little use for wrath or war, they will not put up with disruptions of their communities, and are well able to defend themselves from the predators of the lifezones. In their gardens they grow small plants which secrete a powerful acid from the end of a simple stalk. The surface tension inherent in the acid forms an enlarging sphere of acid in the weightless environment. The Dromulhul harvest the acid into self-sealing bags woven of acid resistant moss (also grown in their gardens). All adults wear stone or crystal carved slingers, which basically consists of a bowl at the end of a long, curved handle shaft. When danger threatens, a Dromulhuln loads the bowl of the slinger with acid. Using all four arms, the Dromulhuln will fling the acidic missile with incredible force and accuracy at the cause of its concern. This equates to a +80 to +180 small arms fire attack, with all criticals being heat (If **Rolemaster** Acid Ball attack tables available, use +30 to +130 Acid Ball attacks), depending upon the skill of the Dromulhuln in question. An acid pouch usually contains enough acid for ten such casts.

The Drom often employ trained Thorndevils for defense in their individual journeys through the drifting lifezones while on sabbatical or in search of new life forms for their gardens.

SELECTED SPACE-ADAPTED LIFE FORMS: PREDATORS

Yurglor

These always hungry beasts have evolved into creatures that are unable to propel themselves through space with vented gas. However, they are content to let their prey find them. These creatures possess between 10 and 20 jointed leg-like thin protrusions which can extend up to 15 meters from their 3 to 5 meter diameter bodies. Eyes protrude randomly about a maw filled with needle sharp teeth. What used to be gas orifices on their evolutionary ancestors are now fiber-spinners. From these, the Yurglor spin out adhesive filaments which they weave into elaborate, gigantic three-dimensional webs. These webs stretch between neighboring asteroids, with the average length of a strand reaching many kilometers! The web filaments are a non-reflective black, and so almost impossible to detect in the vacuum of space (if specifically looking, -30 on perception rolls). Anyone entering an area trapped by a Yurglor has a 35% chance/minute of accidentally blundering into a web strand. These strands are coated with an adhesive fluid which bonds instantly to any material. Only Yurglor saliva is an effective solvent (which the creatures coat their legs with to allow movement along their webs). Each web strand is AT 4, and takes 200 hits to sever.

Yurglor are sensitive to vibrational signals along their web lines, and will arrive within 2d10 rounds to investigate any disturbance. A Yurglor is 50% likely to wait until a captured victim starves to death, but like as not may just wade in for supper. If it seems that a stuck morsel is actually about to free itself, the Yurglor will definitely rush in to put a stop to such activities. The Yurglor will viciously bite with at +100 MA: strike, rank 4 attack, with all criticals being puncture (use +100 bite attack if *Claw Law* is available)

If a Yurglor spies a creature within 100 meters of it which is not entangled in its food web, it may attempt to leap at it with its powerful legs. This can be considered a +100 Enveloping attack. In this event, the creature will always drop a securing tether line so as to pull itself back to its web after it has captured its target.

It is usual for only a single Yurglor to trap a territory.

Swarmslugs (Swarming Death)

These creatures resemble the terrestrially based lamprey in form, but are far more group oriented and aggressive in behavior. They indiscriminately hunt all lifezone life forms, no matter its size, in groups of 10 to 100. The sight of these writhing snake-like creatures raining from the blow void in blood-thirsty hunger gives some idea of why they are often referred to as Swarming Death. The creatures attack *en mass*, sometimes limited only by the surface area of their victim. Treat the attack as a +70 MA: strike, rank 3 (use +70 medium bite attack if *Claw Law* is available) Once an individual slug has achieved a critical, it will begin to suck blood at the rate of 1 hit/round. If a slug is ripped away, bleeding at 2 hits a round will begin, as a large chunk of flesh will usually come away as well. In a vacuum, this translates to 4 hits/round...

Sobibor

These beasts are definitely the most horrible creature to hunt the depths of space, or even most planetary surfaces, for that matter. The Sobibor are such efficient biological machines that some have speculated that they may have been designed that way by some twisted Softechnician. Others contend that the Sobibor are not even native to this section of space at all, but are ancient creatures that evolved to their present mad complexity in another galaxy entirely, and have only recently crossed intergalactic space in some unknown manner, to hunt in greener pastures.

Whatever the truth of the matter, they certainly have little in common with other life forms of space. In a phrase, Sobibor are multi-unit entities. What this means is that there is one central intelligence which controls detached and mobile creatures as if they were merely limbs. Each Sobibor has many such "limbs", the exact number is unknown, because the main intelligences have never been seen. In fact, it is possible that all the limbs that have so far been witnessed all originate with a single controlling Sobibor... Since the main creatures are never witnessed (at least by the now living), the limbs themselves are often referred to as Sobibor, even though they technically are not deserving of the term.

Each limb is formed like a massive, elongated cone the color of obsidian, up to 20 meters long and up to 5 meters wide at the open base. The cone seems to be some sort of supremely dense organic secretion (AT 20), which always seemed to be scored and marked with strange and often disturbing organic designs. The open cone, or maw of the creature contains a nest of ebony tentacles growing around the circular hollow. The tentacles usually vary in length, but the longest are always as long again as the main body, so a Sobibor limb which had a 20 meter cone would have some few tentacles which reached 20 meters as well. Within the maw, through the waving tentacles, a red glow is always evident.

The Sobibor limbs seem to propel themselves through space with some form of continuous telekinetic thrust, as no jet or gas orifices are noticeable on the creature. The creatures can mentally accelerate/decelerate at 100 meters/sec/sec. It is postulated that only relativity limits the speed at which a Sobibor limb can eventually accelerate to. It seems that they have also mastered the Psion like power of mind warping, as 1 time a day they can instantaneously "leap" up to a distance of 1 kilometer.

The limbs seem always ravenous, and whenever encountered (sightings are not limited to lifezones), they invariably attack. Their attack first consists of a space warping jump to within tentacle distance of intended prey. Then, the tentacles lash the target with 1d10 +150 Enveloping attacks. Any tentacles which are successful in grappling the target will instantly plunge the morsel into the hollow of its redly glowing maw. If the target is braced, it may attempt to make a sheer folly roll, with strength bonus applicable, to attempt to retain the grip. Another sheer folly roll, with strength plus agility bonuses applicable, can be made by non-secured targets to attempt to catch the rim of the of the maw as they are plunged past it. If they do manage this maneuver, to maintain the precarious grip, they must continue making sheer folly rolls every round. Those that observe a successful feeding will notice a sudden bright flash of red light emitted from the maw, as the prey is suddenly exposed to an intense psycho-creative blast of mental energy, which transubstantiates the life force and mind of the target directly into the structure of the Sobibor limb. All that remains from this obscene feeding is ash...

Sometimes, a target is not converted directly to food. In this case, the limb makes off into space at an every increasing speed with its prey held captive within the confines of the tentacles. It is conjectured that in these cases the limbs go to feed the central intelligence.

Stories have been told of limbs which are so large that they have torn space craft asunder, and devoured the crew as if they were but sweetmeats in a Spican walnut.

SPACE-ADAPTED LIFE FORM STATISTICS CHART

Type	Level*	Acc†	Size/ Crit§	Hits	AT (DB)	Attacks	# Enc	Outlook
Gam. Moss	10A	-	L/La	50D	1(0)	special	1	vegetable
Glom. Fruit	13D	-	L/La	120D	3(0)	special	1-10	vegetable
Needle Tubes	16F	-	L/La	160H	3(0)	+70 Ent/spec.	1-4	vegetable
Puff Stars	10B	-	L/-	45A	3(0)	+120 sm.proj.	1	vegetable
Quor	10C	2m	M/-	65B	3(30)	var MA strike (claw or ram)	2-20	normal
Thorndevil	15E	1m	L/La	170B	4(45)	+150 Ent/spec.	1-4	passive
Dromulhul	10H	2m	M/-	90H	3(60)	+80 - +180 sm proj./heat crits	1-100	altruistic
Yurglor	18E	jump	L/La	200D	4(60)	+100 Entangle +100 MA strike	1	hungry
Swarmslugs	5A	1m	S/-	20A	2(15)	+50 MA strike	1-10	berserk
Sobibor	20E	100m	L/La	450D	20(30)	+150 entangle	1	berserk

*—Definitions for the letter codes are found in *Aliens and Artifacts*, as well as *Creatures and Treasures I and II*

†—Acc: In space, the most quantification of movement is acceleration. The designation under Acc above refers to a creatures speed of acceleration in meters/second/second. For example, a Quor's Acc is 2m, so the Quor accelerates and decelerates at 2 meters/second/second.

§—Critical designations for Large creatures are applicable only if the **RM** Large Creature Critical Table is available.

12.0

TABLES

MICROWAVE CRITICAL STRIKE TABLE (12.1)

-19-05	Nothin' but a heat wave. +0 hits.
06-20	Hot air annoys target. +3 hits.
21-35	Scalding blast burns leg. +5 hits.
36-50	Toes of left foot seared together. +5 hits, -20 movement.
51-65	Right leg toasted. +10 hits, -15 all actions. Stunned 1 rnd.
66-79	Shot to non-weapon arm. +15 hits, -15 all actions.
80	Target flashed, heating blood to critical levels. Stunned 10 rnds, -50 all actions. +30 hits.
81-86	Weapon hand cooked. +20 hits, -30 all actions.
87-89	Chest blistered and smoking. +25 hits, -30 all actions. Stunned no parry 5 rnds.
90	Target's facial orifices fused shut. +40 hits, -90 all actions Stunned 9 rnds.
91-96	Right wrist fused solid. +30 hits, -35 all actions. Stunned 4 rnds.
97-99	Blast to head scars face horribly. +35 hits, -40 all actions. Stunned no parry 5 rnds.
100	Brain turned into rubber ball. Target vegetable. Permanently.
101-106	Left thigh cooked black and paralyzed. +40 hits, -45 all actions. Stunned 7 rnds.
107-109	Right knee well-done. +40 hits. Shock and nerve damage give -50 all actions. Stunned no parry 6 rnds.
110	Focused attack boils heart, causing it to explode through chest. +100 hits. Death in 1 rnd.
111-116	Cartilage baked and locked in place. Target immobilized. +50 hits, stunned 8 rnds.
117-119	Respiratory system fried. Death in 5 rnds. +60 hits. -60 all actions.
120	Target falls forward, bounces twice, and expires. All within take an 'A' Radiation critical.

Modifications:

'A' Critical	-20
'B' Critical	-10
'C' Critical	+0
'D' Critical	+10
'E' Critical	+20

POWER TOOL FUMBLE TABLE (12.2)

01-25	You wait too long for "The Right Moment" to attack, and lose the opportunity to do so. Try again next round at -10.
26-30	In the Heat of the moment, you hesitate and lose your chance to strike. Well, there's always another round.
31-40	Suddenly you realize just how slick the grips are and spend the next two rounds adjusting your hold on the weapon.
41-50	Boy was that a silly move on your part. After almost losing your grip on the weapon, you spend two rounds trying desperately to get a better hold. Unfortunately, you are left unable to parry for that time.
51-60	Inadvertently catching your gaze on the motorized blade, you are mesmerized by the whirring teeth. Spend a couple rounds obsessed by this new found poetry in motion.
61-70	Get a little carried away with a fancy move on the stupid side. You cut your own leg and bleed at 1 per round. Stunned for one round, and you are at -20 for your next attack.
71-75	The saw slips right out of your hands and hits the floor. The engine stalls and dies. You will have to spend two rounds to recover the weapon and one round to start it, although you may draw another weapon if you wish.
76-80	Bad follow through pulls muscle in weapon arm and causes spasm of pain. fight at -10 until relief can be applied. If you were a little more graceful, these things wouldn't happen.
81-85	What a wide swing. Determine who is the nearest friend and roll a normal attack against him. If no one is near, suffer a type B Unbalancing critical.
86-90	You have reached a new peak for stupid maneuvers. This one pulls your shoulder way out of joint and sprains it. If you continue to melee, you will do so at -50.
91-95	Your grip was a little weaker than you thought, and you successfully drop the saw on your foot. Those things on the floor are 1-3 of your toes (What a mess). All moving maneuvers are attempted at -65, you are bleeding at 2 points per round, and still need to take two rounds to pick up the power saw.
96-99	This over exertion isn't good for you. A very severe cramp ties your arm's muscles into square knots. If you stop fighting, the cramp will cease after 5 rounds of gentle massage. If you continue to swing the blade like an idiot, you will be at -75 for the duration and the cramp will continue for 5 rounds + the number of additional rounds of continued activity.
100	During this overzealous attack brought on by the excitement of combat, and the adrenalin pumping through your arteries, you suffer a severe loss of your senses. During which, you attempt to juggle your weapon, unfortunately catching the wrong end. 1-5 of your fingers on your weapon hand are flung aimlessly around the area. (If you are lucky, you might at least find all of them). However, you are stunned for 4 rounds, and will be at -80 for all maneuvers involving use of your hands, and you are bleeding rather severely at 4 points per round. (No more finger games for you).

At GM's discretion, anytime "doubles" are rolled for the fumble, the power tool user inflicts a "C" Power Tool Critical on himself!

12.3
POWER TOOL
ATTACK TABLE

Weapon Type:
varies

Length: varies

Fumble:
1-Handed: 1-10
2-Handed: 1-15

Range Mod: —

	20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1
150	36F	41F	50G	54G	47G	51G	55G	59H	48G	53G	58G	63H	56H	62H	65J	68J	64H	65J	70K	72K
149	35F	40F	49G	53G	46G	50G	54G	58H	47G	52G	57G	62G	55H	61H	65J	67J	63H	64J	70J	71K
148	34F	39F	49F	52G	45G	49G	53G	58H	46G	51G	56G	61G	54H	60H	64J	66J	62H	64J	69J	71J
147	34E	38F	48F	51G	44G	48G	53G	57G	46F	50G	55G	60G	54G	59H	63J	65J	61H	63J	68J	70J
146	33E	37F	47F	50F	43G	47G	52G	56G	45F	49G	54G	59G	53G	58H	63J	65J	60H	62J	68J	69J
145	32E	36F	46F	49F	42G	46G	52G	56G	44F	48G	53G	58G	52G	57H	62J	64J	60G	61J	67J	68J
144	31E	35F	45F	48F	41F	46G	51G	55G	43F	48F	52G	57G	51G	57G	61J	63J	59G	60J	66J	68J
143	30E	34F	44F	47F	40F	45G	51G	55G	42F	47F	51G	56G	50G	56G	60J	62J	58G	59J	65J	67J
142	29E	33F	43F	46F	40F	45G	50G	54G	41F	46F	50G	55G	49G	55G	59J	62J	57G	59H	64J	66J
141	28E	33F	42F	45F	39F	44G	50G	54G	40F	45F	49G	54G	48G	54G	58J	61J	56G	58H	63J	65J
140	27E	32F	41F	44F	39F	44G	49G	53G	39F	44F	49F	53G	47G	53G	57J	60J	55G	57H	62J	64J
139	26E	32F	40F	43F	38F	43F	49G	53G	38F	43F	48F	52G	46G	52G	56J	59J	54G	56H	61J	63J
138	25E	31F	39F	42F	38F	42F	48G	52G	37F	42F	47F	52F	45G	51G	55J	58J	53G	55H	60J	62J
137	24E	31F	38F	41F	38F	42F	48G	52G	37E	41F	46F	51F	44G	50G	54J	57J	52G	54H	59J	61J
136	23E	30E	37F	40F	37F	41F	47F	51G	36E	40F	45F	50F	43G	49G	53J	56J	51G	53H	58J	60J
135	22E	29E	36F	39F	36F	41F	46F	51G	35E	39F	44F	49F	42G	48G	52J	55J	50G	52H	57J	59J
134	21E	28E	35F	38F	36F	40F	46F	50G	34E	38F	43F	48F	42F	47G	51J	54J	49G	51H	56J	59J
133	20E	28E	34F	37F	35F	40F	45F	50G	33E	38E	42F	47F	41F	46G	51H	54J	48G	50H	55J	58J
132	20E	27E	33F	37F	35F	39F	44F	49G	32E	37E	41F	46F	40F	46G	50H	53J	47G	50G	54J	58J
131	20E	27E	32E	36E	34F	38F	43F	48G	32E	36E	40F	45F	39F	45G	50H	53H	46F	49G	53J	57J
130	19D	26E	31E	36E	34F	38F	42F	48F	31E	35E	39F	44F	38F	44G	49H	52H	45F	49G	52H	56J
129	19D	26E	31E	35E	33F	37F	41F	47F	31E	34E	38F	43F	37F	44F	48H	51H	44F	47G	51H	55H
128	19D	25E	30E	35E	33F	37F	40F	46F	30E	33E	37F	42F	37F	43F	47H	50H	43F	46G	50H	54H
126	19D	25E	30E	34E	32E	36F	39F	45F	30E	33E	36F	41F	36F	42F	45H	49H	42F	45G	49H	53H
125	18D	24E	29E	34E	31E	36F	38F	44F	29E	32E	36E	40F	36F	41F	44H	48H	41F	44G	48H	52H
124	18D	24E	29E	33E	31E	35F	37F	43F	29D	32E	35E	39F	35F	40F	43H	47H	40F	43G	47H	51H
123	18D	23E	28E	33E	30E	34F	36F	42F	28D	31E	34E	38F	35E	39F	42H	47H	39F	42G	46H	50H
122	18D	23D	28E	32E	30E	33E	36F	41F	28D	31E	33E	37F	34E	38F	41H	46H	38F	41G	45H	49H
121	17D	23D	27E	32E	29E	32E	35F	40F	27D	30D	32E	36F	34E	37F	40H	45H	37F	40G	44H	48H
120	17D	22D	27E	31E	29E	32E	35E	39F	27D	30D	32E	36E	33E	36F	40G	44H	36F	39G	43H	47H
119	17D	22D	26D	31E	28E	31E	34E	38F	26D	29D	31E	35E	33E	35E	39G	43H	35F	38G	43H	46H
118	17D	21D	26D	30E	28E	31E	34E	38E	26D	29D	31E	34E	32E	34E	38G	42H	34F	37G	41H	46H
117	17D	21D	25D	30D	27D	30E	33E	37E	25D	28D	30E	33E	32E	33E	37G	41H	33F	36G	41H	45H
116	17D	20C	25D	29D	26D	29E	32E	36E	25D	27D	29E	32E	30E	32E	36G	40H	32F	35G	40H	45H
115	16C	20C	24D	29D	25D	28E	31E	35E	25C	26D	28E	31E	29E	31E	35G	39H	31F	34G	39G	44H
114	16C	19C	24D	28D	24D	27E	30E	34E	24C	25D	27E	30E	28E	30E	34G	38H	30F	33G	39G	43H
113	15C	19C	23D	28D	23D	26E	29E	33E	24C	24D	26E	29E	27E	29E	33G	37H	29F	32G	38G	42H
112	15C	18C	23C	27C	22D	25D	28E	32E	23C	23D	25E	29E	26E	28E	32G	36H	28F	31G	37G	41G
111	14C	18C	22C	27D	21D	24D	27D	31E	23C	22D	25D	28E	25E	27E	31G	35H	27F	30G	36G	40G
110	14C	17C	22C	26D	21C	23D	26D	30E	22C	22D	24D	28E	24D	26E	30G	34H	26F	30F	35G	39G
109	13C	17C	21C	26D	20C	22D	25D	29E	21C	21D	24D	27E	23D	25E	29G	33G	25F	29F	34G	38G
108	13B	16C	21C	25D	19C	21D	24D	28D	20C	21C	23D	27E	22D	24E	28G	32G	24F	28F	33G	37G
107	12B	16C	20C	24C	18C	20D	23D	27D	19C	20C	23D	26E	21D	23E	27G	31G	23F	27F	32G	36G
106	12B	15B	20C	23C	17C	19D	22D	26D	18C	20C	22D	26D	20D	22E	26G	30G	23E	26F	32G	35G
105	11B	15B	19C	22C	16C	18C	21D	25D	17C	19C	22D	25D	19D	21E	24F	29E	22E	25F	31F	34G
104	11B	14B	19C	21C	15C	17C	20D	24D	16C	19C	21D	25D	18D	21D	23F	27G	21E	24F	31F	33G
103	11B	14B	18B	20C	14C	16C	19D	23D	15C	18C	21D	24D	18D	20D	22F	25G	20E	23F	31F	32G
102	11B	14B	17B	20C	14C	15C	19C	23D	15B	18C	20C	24D	17D	20D	22F	24G	20E	22F	30F	32F
101	10B	13B	17B	19C	13C	15C	18C	22D	14B	17C	20C	23D	17D	19D	21F	24G	19E	22F	30F	32F
100	10B	13B	16B	19C	13C	14C	18C	22D	14B	17C	19C	23D	16D	19D	21F	24G	19E	21F	30F	31F
99	10B	13B	16B	18C	12C	14C	17C	21D	13B	17C	19C	22D	16C	19D	21F	23G	19E	21F	29F	31F
98	10B	12B	16B	18C	12B	13C	17C	21C	13B	16C	19C	22C	16C	18D	20E	23F	18E	21F	29F	31F
97	9B	12B	15B	18C	11B	13C	16C	19C	13B	16B	18C	22C	15C	18D	20E	23F	18E	20F	29F	30F
96	9B	12B	15B	17C	11B	13C	16C	19C	12B	16B	18C	21C	15C	18D	20E	22F	18E	20F	28F	30F
95	9A	11B	15B	17B	10B	12C	16C	19C	12B	15B	18C	21C	15C	17C	19E	22F	17E	20F	28F	30F
94	9A	11B	14B	17B	10B	12B	15C	18C	12B	15B	17C	21C	14C	17C	19E	22F	17E	21E	28E	29F
93	8A	11B	14B	16B	9B	12B	15C	18C	11B	15B	17C	20C	14C	17C	19E	22E	17E	20E	28E	29F
92	8A	10A	14B	16B	9B	11B	15C	18C	11A	14B	17C	20C	14C	16C	18D	21E	16E	19E	27E	29F
91	8A	10A	13B	16B	8B	11B	14C	17C	11A	14B	16B	20C	13C	16C	18D	21E	16E	19E	27E	28E
90	8A	10A	13B	15B	8A	11B	14C	17C	10A	14B	16B	19C	13B	16C	18D	21E	16E	19E	27E	28E
89	7A	9A	13B	15B	8A	10B	14C	17C	10A	13B	16B	19C	13B	15C	17D	21E	15E	18E	26E	28E
88	7A	9A	12B	15B	7A	10B	13C	16C	10A	13B	15B	19C	12B	15C	17D	20E	15E	18E	26E	27E
87	7A	9A	12B	14B	7A	10B	13C	16C	10A	13B	15B	18C	12B	15C	17D	20E	15E	18E	26E	27E
86	7A	8A	12B	14B	7A	9B	12C	16C	9A	12B	15B	18C	11B	14C	16D	20D	14E	18E	25E	27E
85	6A	8A	10B	14B	6A	9B	12C	15C	9A	12B	14B	18C	11B	14C	16D	19D	14E	17E	25E	26E
84	6A	8A	10B	13B	6A	9B	12C	15C	9A	12B	14B	17C	11B	14C	16D	19D	13E	17E	25E	26E
83	6A	7A	9B	13B	6A	8B	11C	15C	8A	11B	14B	17C	11B	14C	15D	19D	14D	17E	24E	25E
82	6A	7A	9B	13B	6A	8B	11B	14C	8A	11A	14B	17B	10B	13C	15C	18D	13D	16E	24E	24E
81	5A	7A	8B	12B	5A	8B	11B	14C	8A	11A	13B	16B	10B	13C	15C	18D	13D	16E	24E	23E
80	5A	6A	8B	12B	5A	7B	10B	14C	7A	10A	13B	16B	10B	13C	14C	18D	12D	17D	23E	22E
79	5	6A	8A	12B	5A															

POWER TOOL CRITICAL STRIKE TABLE (12.4)

	A	B	C	D	E
01 - 05	How embarrassing. Mosquitoes have done more damage. +0 hits.	Whoa! That was scary! Better check your trousers, bud.	Ouch! +1 hit.	Oops. Only +2 hits.	Not too impressive. +4 hits.
06 - 10	Time to get serious! +1 hit.	Could have been better. +2 hits.	Ouch! +3 hits.	Try again. +5 hits.	Foe is unbalanced. You receive the initiative next round. +5 hits.
11-15	Foe's eyes lock onto the blade. He loses initiative next round.	Glancing strike to side. You receive initiative next round. +3 hits.	Strike to foe's side. You receive initiative next round. +7 hits.	Foe must parry next round. +4 hits.	Foe must parry next round. +5 hits.
16-20	Foe is rattled and must parry next round at -10. +2 hits.	Side strike. +3 hits. Foe must parry at -10 next round.	Slash to side. +5 hits. Foe must parry next round at -25	Side wound worth 4 additional hits. Foe is at -15. You receive initiative next round.	Foe stunned and unable to parry for 2 rounds. +15 to your next attack.
21-35	Foe looks a little worried. He must parry next round. Add +15 to your next attack. +3 hits.	Foe is unbalanced and must parry next round at -15. +3 hits.	Blade grinds against foe's ribs. +5 hits and bleeds at 1 per round. Foe stunned 2 rounds.	Side strike stuns foe next round, unable to parry. +4 hits.	Minor side wound. Foe bleeds at 1 per round and operates at -15. +5 hits.
36-45	Slice into thigh causing foe to bleed at 1 per round. Not too shabby. +2 hits.	Strike to lower leg causes foe to bleed at 2 per round. +4 hits.	Carve foe's leg to bleed at 2 per round. +4 hits. Stunned for 2 rounds.	Slash foe's upper leg for +5 hits. Foe will continue to bleed 3 hits per round.	Cut into foe's upper leg. If foe has leg armor, +7 hits. If no leg armor, +4 and bleeds at 4 per round.
46-50	Catch foe across back with a good gouge. Foe bleeds at 2 per round. Foe must parry next round at -35. +2 hits.	Swipe across foe's back. Foe must parry next round at -40. +6 hits.	Strike across back stuns foe for 2 rounds, unable to parry. Foe bleeds 2 per round. +5 hits.	Glancing blow to lower back. foe is stunned and unable to parry for 2 rounds. Foe bleeds at 3 per round. +5 hits.	Blade across lower back, foe is stunned, unable to parry next round, and bleeds at 3 per round. +7 hits.
51 - 55	Tear across foe's chest. Bleeds at 2 per round. Foes must parry next round at -35. +2 hits.	Chest strike spits bone flakes (-10 to your next attack). Foe bleeds at 2 per round and must parry next round. Fights at -5. +5 hits.	Blade buzzes across foe's chest. Bleeds at 3 per round and fights at -15 but must parry next round. +6 hits.	Foe attempts to breathe through this new lung opening. Foe bleeds at 4 per round and fights at -20. Must parry next round at -30. +7 hits.	Gushing chest wound bleeds at 4 hits per round. Foe is stunned for 3 rounds and operates at -20. +9 hits.
56-60	Slice into foe's thigh. Bleeds at 2 per round. +4 hits.	A deep gash across foe's thigh forces him to parry for 2 rounds. Bleeds at 3 per round. +5 hits.	Thigh wound spews blood at 3 per round and stuns foe next round. +7 hits.	Thigh injury stuns foe for 2 rounds and bleeds at 3 per round. +8 hits.	Grinding hip strike stuns foe for 4 rounds and bleeds at 5 per round. +10 hits.
61-65	Strike to foe's forearm. Bleeds at 3 per round. Foe is at -10. +4 hits.	Cut foe's forearm. Stunned next round and bleeds at 3 per round. Foe is at -15. +6 hits.	Cut along forearm loses blood at 4 per round, stunning foe next round. Operates at -15. +6 hits.	Grind foe's forearm, stunning him for 2 rounds, and bleeding at 4 per round. Foe is at -20. +8 hits.	Pulp foe's elbow, stunning him for 3 rounds, and bleeding 4 per round. Foe fights at -25. +9 hits.
66	Totally mutilate foe's shield arm at the shoulder. Foe is stunned 5 rounds, bleeds 5 per round, and is at -45. +15 to your next attack. +12 hits.	Surgically remove the elbow of foe's foe's weapon arm, stunning foe for 4 rounds (unable to parry). Arm is useless below elbow. +10 hits.	Remove foe's knee and split his shin. Foe is knocked down for 3 rounds (stunned and unable to parry). +9 hits. Foe is at -90.	Blade whines and squeals as it grinds into foe's ribcage, wedging itself there with horrible sounds of grinding bone. Stunned 8 rounds and bleeding at 4 per round. +30 to your next attack versus this foe since your blade is stuck in him. Rev it up and pull it out! Yuck!	Amputation of foe's weapon arm sends him down. Foe will expire in 10 rounds from blood loss. +15 hits. +10 to your next attack.
67 - 70	Now that was close! Such an easy swing slices across foe's neck. +8 hits and stunned 4 rounds (unable to parry next round).	Good neck strike! That gurgling sound is just the foe trying to breathe. Bleeding at 4 per round. Foe is stunned for 3 rounds and will fight at -15. +10 Hits.	Slash foe's neck stunning for 4 rounds, unable to parry. Add +10 to your next attack. Foe bleeds 3 per round. +12 hits.	Blade slows as it goes through foe's collar bone. Stunned 5 rounds and unable to parry for 3. Foe fights at -35. +14 hits.	Strike obliterates foe's shield shoulder, rendering it useless. Foe bleeds at 3 per round, stunned and unable to parry for 5 rounds, fights at -35. +15 hits.
71 - 75	Pretty good! Hook foe at side of knee and destroy tendons in lower leg. Foe is at -40 and bleeds 3 round. +6 hits.	Shred foe's calf stunning him for 4 rounds. Cannot parry next round. +3 hits. Operates at -45.	Shred lower leg muscles. Foe stunned 4 rounds and is -50. +10 hits.	Slash and sever tendons and muscles of leg. Stunned for 4 rounds, unable to parry for 3. Foe is at -55. +10 hits.	Slash foe's leg down to the bone. Foe is at -75, and bleeds at 6 per round. Stunned 4 rounds, +12 hits.
76-80	Oh yeah! Grind foe's upper arm. He is at -30, bleeds 4 per round, and is stunned no parry for 4 rounds. +7 hits.	Obliterate foe's shield arm, bleeding at 4 per round, and is at -40. Stunned no parry for 2 rounds. +9 hits.	Mutilate muscles and tendons of foe's shield arm. Foe bleeds at 5 per round and arm is useless. Stunned 6 rounds. +11 hits.	Demolish foe's weapon arm; it is useless. Stunned, unable to parry for 5 rounds. Bleeds at 3 per round. +13 hits.	Your attack removes half of a rack of ribs from your foe. Massive internal damage and +20 hits. Foe drops and dies after 9 rounds of misery.
81-85	Carve foe like a turkey dinner! +8 hits and a major wound. He bleeds at 7 per round and is stunned for 7 rounds. Your precision awards you with a +25 for your next attack.	Gouge through foe's side. Foe bleeds at 7 per round. Stunned, unable to parry for 3 rounds. +9 hits.	Side strike stuns foe for 3 rounds, unable to parry. Bleeds at 6 per round, +10 hits, and operates at -25.	Deep abdominal strike tangles and scrambles intestines. Stunned 8 rounds and bleeds at 10 per round. +12 hits. Operates at -35.	Sever opponent's hand above the wrist. +9 hits and foe is at -40 for 10 rounds; then dies from the blood loss. Stunned for 2 rounds.
86-90	Slash foe across back. He is stunned and no parry for 3 rounds and bleeds at 4 per round. +10 hits.	Abdomen strike turns foe into cheap sausage. Foe drops to ground stunned and unable to parry for 3 rounds. Foe bleeds at 4 per round. +11 hits.	Blade plows through back and meets bone with gruesome grinding sounds. Foe is -20 and knocked down, stunned and unable to parry for 4 rounds. Foe bleeds at 4 per round. +13 hits.	The foe probably didn't need that hand anyway. Stunned unable to parry for 6 rounds. Drops and dies in 8 rounds due to bleeding from the pulped stump.	Sever foe's leg for +24 hits. Foe drops and goes unconscious in 4 rounds and dies 5 rounds after that. +10 to your next attack.
91-95	Shred foe's ear. +4 hits and bleeds at 3 per round. He is stunned and no parry for 3 rounds. Foe hears at -50.	Attempt to remove foe's hip. Foe is stunned for 3 rounds (unable to parry for 2). Fights at -25. There is a 5% chance that the tool's blade is stuck in the hip. If so, +20 to next attack. Else, +10 to next attack.	Sever foe's leg at hip sending foe toppling to the ground. Foe dies after 5 rounds of blood loss, shock, and screaming. +25 hits.	Great swing severs foe's weapon arm. Foe stunned and unable to parry for 10 rounds and then dies from shock and blood loss. +20 hits.	Carve foe's spine. +27 hits. Foe is introduced to gravity and collapses, bleeding at 2 per round. Paralyzed from the neck down (permanently).
96 - 99	Gruesome face strike. Foe's cheek hangs from face "blowing in the wind." Teeth on that side are gone. -50 to foe's Appearance. Stunned 8 round, bleeds at 4 per round, and operates at -40. +18 hits.	Head strike cleaves skull along foe's part in hair and sprays a shower of brain matter. Foe stops, drops and dies after 4 rounds of twitching. 15% chance that blade is stuck. If so, take one round to remove it.	Sever weapon arm at collar bone. Foe is unable to parry for 9 round at which time, the foe dies drenched in his own blood. Until then, +22 hits.	Carve foe's side, obliterating kidneys. +25 hits. Foe drops and dies in 3 round. Until then, stunned and unable to parry.	Solid head strike effectively separates foe's brain into its hemispheres. Foe drops dead (no questions asked).
100	Unbelievable neck strike. Think hamburger. Neck is utterly pulped, killing foe after 1 round of intense agony. Victory is yours!	Disembowel foe, killing instantly. 50% chance blade is stuck in foe.	Deep slice across eyes and through bridge of nose. Only 50% chance of death. Otherwise, blind after 1 week of coma. -40 to Appearance. 10% chance of significant brain damage.	Blade plunges through sternum and destorys chest cavity. No organ remains intact. Foe is definitely very dead.	Frightening groin strike would make the most powerful warrior cringe in horror. All vitals are destroyed. Foe stunned and unable to parry for 11 rounds and dies on the 12th round. +15 hits.

POWER ARMOR CRITICAL STRIKE TABLE (12.5)

	A	B	C	D	E
01 - 05	Dust blow off.	Glancing hit leaves armor smudged.	Barrier shield down for 2 rounds.	MWpns operate at -15.	Computer and Comm and -40.
06 - 10	Paint scratched.	The mark will stay there forever.	MWpns damaged. Function at -25.	Computer destroyed. All computer action is at -100.	Barrier shield down for 5 rounds.
11-15	A dent in the chest. How upsetting!	Metal flakes spray the air. A scary hit, but that's all. -10 next round.	Computer down. All computer activity is at -60.	Barrier shield is off for 5 rounds.	MWpns are out and comm sends but doesn't receive.
16-20	Long gruesome scar and big dent. If you're not insured it's gonna cost you.	All lights flicker, and an odd buzzing starts. Worrying puts you at -20 for 3 rounds.	Barrier shield drops for 3 rounds, then returns to normal.	Wpn arm shoulder jams. Difficult Move to undo. Act at -30.	Suit shuts down for 3 rounds. -110 while shut down (then returns to normal).
21-35	All lights flicker. -10 next round. You really should worry.	Computer damaged. All computer activity is at -50.	Comm damaged. Head and send at -60.	Life support stops. You have 10 minutes of air.	Barrier shield is down for 3 rounds, then returns to half previous level.
36-45	Computer damaged. All computer action is at -30.	Comm. damaged. Head and send at -50.	Barrier shield is reduced to half current efficiency.	Barrier shield at half current power.	Life support is out. You have 10 minutes of air.
46-50	Comm. damaged. Hear and speak at -30.	Barrier shield is at half current power.	MWpns are destroyed in the attack. Hope you have a spare.	MWpn destroyed. Arm damaged. Act at -30.	Barrier shield at quarter current power and comm. completely wiped out. Computer acts at -60.
51 - 55	Barrier shield at half current efficiency for 2 rounds.	Ration tubes explode across visor and face. For 2 rounds, your blind and act at -40 (while you clean up the mess). Yuk!	Lights flicker ominously and suit dies for 5 rounds (act at -115). After this, the suit powers up and functions at -30.	Comm. gone. Utter silence.	Wpn shoulder locks in place. Act at -70. Very Hard maneuver to undo.
56-60	MWpns misaligned. Use them at -25.	Whole unit is dead for 3 rounds (act at -110). Mnv. then is all normal.	Comm. completely destroyed. Do you know sign language?	Barrier shield down to quarter current power. Computer activity is at -50.	Sparks and fire cover inside of chest. Take A Electricity and B Heat crits. Spend next round controlling the situation.
61-65	All goes dead for 3 rounds (-100), then back to normal.	Comm. damaged. You can't hear, but are heard by others. How would you know?	Barrier shield cut to quarter of current power. Get a good luck charm to help you out.	Both shoulders damaged. -70 to all actions.	Life support hose dislodged. You're exposed. Gravitics are out and Barrier shield is at quarter current power.
66	Sparks fly across interior. Take an A Electricity crit. Armor acts at -20.	Sparks fly and you smell smoke. Take a C Electricity crit. Armor will function at -30. Maybe you should look for an escape route.	Flames and webs of electricity fill the suit. Take an E Electricity crit and an A Heat crit. Devote all of the next round to damage control. Suit is at -40.	Take an E Electricity crit and a B Heat crit. Must evacuate suit or continue taking crits until a Very Hard Maneuver is succeeded to control damage. If damage is controlled, suit will function at -70.	Take an E and an A Electricity crit and a B Heat Crit. Occupant is on fire (as well as suit) and must evacuate. Will continue to take Heat crits until out of the suit and fire is put out (a Hard maneuver). It's totalled.
67 - 70	Comm. hit. You can hear, but can't be heard.	The sound of scraping metal grabs your attention. The shoulder servo is damaged. Arm functions at -30.	Shoulder and hip servos are damaged. You will function at -75 while in the suit.	Barrier shield is down for good.	Shoulders damaged. Arms pinned to sides. -75 for all actions.
71 - 75	The sound of grinding metal makes hair stand on end. Shoulder servo damaged. -20 to all actions with that arm.	Barrier shield drops to quarter of its current power.	Barrier shield will only operate for 3 more rounds (before shutting down entirely).	Hip damaged. -60 to all actions. Gravitics destroyed and fusion drive is at half efficiency.	Energy bolts fill the suit for 2 rounds. Take a B Electricity crit each round. Suit functions at -90.
76-80	Barrier shield reduced to half of its power. Start sweating.	Life support damaged. 5 minutes until shut down. 10 minutes of air after that Do you know E.V.R.?	Gravitics power is destroyed. Looks like you'll be walking, guy.	Sparks and energy bolts fill the suit. Take an A Electricity crit. Barrier shields out.	Hips obliterated (act a -110). Fusion drive is out, and power drain allows only 10 minutes of activity.
81-85	Life support damaged. 10 minutes until shutdown; only 10 minutes of air after that. Hope you know E.V.R.?	Barrier shield and gravitics knocked out for 10 rounds; then returns at half efficiency.	Power drain allows 6 more rounds of action; then all systems go dead and suit acts at -120.	Both hip servoes damaged. -90 to all actions. Fusion drive is out.	Damage to suit is too extensive for autoseal. You're exposed for the duration.
86-90	Impact carries into helmet. Eyes focus on hairline crack in visor. Take no action next round (wondering if you have been exposed).	Power drain gives 10 more rounds of action. Type IV loses fusion five.	Barrier shield is destroyed and all MWpns are nonfunctional.	You're exposed to the outside for 2 rounds as autoseal is delayed. Take all appropriate crits. Life support is down with only 1 minute of air left.	Suit has 6 rounds left before utter stillness (-130).
91-95	Gravitics at half efficiency and barrier shield is at quarter power.	Barrier shield completely disrupted. It no longer protects you. Pray.	Integrity disrupted. Autoseal take 1 round to repair. Take crits. Life support is with 5 minutes of air.	An odd rattle sounds behind you. Every round is -10 to actions (cumulative, until -100 is achieved). At that time, the suit shuts down quietly.	Suit stops where it stands (-130). Hope you're not claustrophobic.
96 - 99	Power drain gives on 12 more rounds of activity. If Type IV, fusion drive inoperative.	Autoseal doesn't repair damage for 2 rounds. Take all appropriate crits.	You hear the suit powering down. Lights go out one by one. You might get 1 round of action.	Suit comes to a sudden halt; all is dead. -110 to any action attempted. It's cold in space.	The suit not only halves (-150), the inside is also exposed through a hole your fist can fit through. Takes crits for the duration.
100	All systems go dead (-110 to all actions). Good luck with jumper cables.	All is black inside. Suit drains all power as lights display over it's armor plates. Take B Electricity crits for 5 rounds.	Suddenly, suit drains into occupant. Take C Electricity crits every round until suit is repaired or evacuated. If repaired, suit functions at -120.	A massive blow to the reactor destroys the emergency shutdown systems. Overload is imminent. You have 5 minutes to say your prayers. It will take out an 8 km radius. Wow!	Armor takes criticals every round. Roll on the E column of this table every round for the duration!

DISINTEGRATION CRITICAL STRIKE TABLE (12.6)

	A	B	C	D	E
01-05	Stomach closely grazed. +4 hits, 2 hits/rnd.	+6 hits, 3 hits/rnd. Target is at -10.	Shot to midriff. Target takes 9 hits, 3 hits/rnd.	Side wound causes 9 hits, 4 hits/rnd.	Shot to hand gives +8 hits, 2 hits/rnd.
06-10	+5 hits, 1 hit/rnd.	+7 hits, 3 hits/rnd. Target is at -15.	Crippling finger wound. +9 hits, 4 hits/rnd.	Lucky shot takes off little finger. 7 hits, 5 hits/rnd.	Left thumb takes its leave. 10 hits, 3 hits/rnd.
11-15	Leg shot. +5 hits, 2 hits/rnd.	+8 hits, 3 hits/rnd. Foe maneuvers at -20.	Gouge in hand delivers +10 hits, 3 hits/rnd.	Vicious wrist strike yields 10 hits, 4 hits/rnd.	Two fingers mysteriously vanish. 12 hits, 4 hits/rnd.
16-20	Thigh gashed. +4 hits, 3 hits/rnd.	Wound to arm causes +8 hits, 4 hits/rnd. -15 all actions.	Leg strike. +11 hits, 4 hits/rnd. -25 all maneuvers.	Abdominal strike inflicts 11 hits, 4 hits/rnd. Add +10 to your next attack.	Grazing chest wound. +13 hits, 5 hits/rnd. Add +20 to your next attack.
21-35	Strike to foot. 6 hits, 2 hits/rnd. -5 all actions.	Left ankle hit. +9 hits, 3 hits/rnd. -20 all actions.	Strike vaporizes toes and pavement. +12 hits, 5 hits/rnd. -35 all actions.	Upper thigh strike exposes nerves. +13 hits, 6 hits/rnd. -15 all actions.	Kneecap strike inflicts +15 hits, 6 hits/rnd. -40 all maneuvers.
36-45	Neck wound. +6 hits, 3 hits/rnd. -10 all actions.	Slice of target's neck disappears. +10 hits, 5 hits/rnd. -20 all actions.	Penetrating wound to shoulder. +13 hits, 5 hits/rnd. -20 all actions.	Shot next to groin scares foe badly. He takes 15 hits, 6 hits/rnd.	Groin vanishes! 17 hits, 6 hits/rnd. Target -40 to all actions and permanently sterile.
46-50	Strike grazes shoulder. +6 hits, 3 hits/rnd. -10 all actions.	Strike to thigh causes +11 hits, 6 hits/rnd. Foe is at -25.	Foe takes shot in neck. +15 hits, 7 hits/rnd. -25 all actions, foe loses voice for two days.	Shoulder wound. Nerves powdered, paralyzing arm. +16 hits, 7 hits/rnd. -25 all actions.	Arm plummets to ground. 19 hits, 9 hits/rnd. -30 all actions.
51-55	Ear disintegrated. +7 hits, 4 hits/rnd. -15 all actions.	Foe takes shot in left temple. +2 hits, but 11 hits/rnd. -30 all actions.	Slashing wound to cheek lowers Ap by 20. +14 hits, 8 hits/rnd.	Major wound to throat. +19 hits, 8 hits/rnd. Foe is at -30 to all actions, and is mute.	Ace shot to throat dissolves esophagus. 21 hits, 11 hits/rnd. Target -45 to all actions and cannot speak.
56-60	Lower leg consumed. 10 hits, 5 hits/rnd. -30 to all maneuvers.	Shot clips across hand. +14 hits, 7 hits/rnd. -30 all actions.	Foe takes shot in leg. +16 hits, 8 hits/rnd. Foe at -50.	Shot in hip exposes bone. +22 hits, 11 hits/rnd. -40 all actions.	Tongue, one eye, and nose eradicated. 22 hits, 12 hits/rnd.
61-65	Neat pinhole through wrist. Enemy takes +12 hits, 5 hits/rnd.	Bicep sliced in two. +14 hits, 7 hits/rnd. -35 all actions.	Deep arm wound. Foe drops whatever he is holding. +17 hits, 9 hits/rnd. -55 all actions.	Hand hangs by threads. Target takes +24 hits, 12 hits/rnd. -60 all actions.	Arm violated to middle of forearm. Victim takes +26 hits, 13 hits/rnd. -60 all actions.
66	Strike to shoulder/neck area devours skin, giving +30 hits, 10 hits/rnd. -30 all activity.	Freak shot disintegrates both of target's hands. Foe drops, screaming. 40 hits, 17 hits/rnd.	Shot blankets chest, leaving brilliantly bleached empty rib cage. Death is instantaneous.	Target completely disintegrated. Foe's armor strangely remains intact, standing empty.	Foe screams shrilly and fades away. Only smoke remains.
67-70	Fingers of left hand vaporized. Foe takes 14 hits, 6 hits/rnd. -30 all actions.	Shot to right hand denudes fingers. Target takes 15 hits, 7 hits/rnd. -35 all actions.	Target's left hand ruined. He takes 20 hits, 10 hits/rnd. -35 all actions.	Damage to right side causes 26 hits, 11 hits/rnd. Target down 3 rds. from shock. -60 all actions.	Target amazed—he's standing without feet (temporarily). 28 hits, 14 hits/rnd. -70 all actions.
71-75	Tendons in arm slashed in two. 15 hits, 7 hits/rnd. Arm useless. -35 all actions.	Hole materializes within upper arm, through muscle and bone. 17 hits, 8 hits/rnd. -40 to all actions.	Target temporarily blinded and cranial hair removed. Who loves ya, baby? 22 hits, 11 hits/rnd. -45 to all actions.	Shot wallops shoulder, destroying joint. 28 hits, 12 hits/rnd. -65 all actions.	Shoulder and chest cleansed of flesh. +30 hits, 15 hits/rnd for four rounds before the reaper calls. -75 all actions.
76-80	Left arm stripped of flesh to elbow. 16 hits, 8 hits/rnd.	Furrows cut deep into right arm. 18 hits, 9 hits/rnd. -45 to all actions.	Right arm powdered. 22 hits, 11 hits/rnd. Foe at -50.	Target amazingly takes no damage. However, everything worn or carried is suddenly missing. . .	Right shoulder silently vanishes. Foe dies in a shower of blood in 2 rds. +32 hits, 16 hits/rnd. Foe at -90.
81-85	Skin shucked from abdomen. +18 hits, 8 hits/rnd. -45 all actions.	Abdomen partially-obliterated. Liver enjoys a tan. 20 hits, 10 hits/rnd. -50 all actions.	Deep abdominal wound causes public display of anatomy. 24 hits, 12 hits/rnd. Foe at -60.	Strike careens through abdomen, leaving daylight shining in. 26 hits, 13 hits/rnd. Death in 3 rds. Foe at -75.	Target flows to ground as skeleton is destroyed. +50 hits. Life as a jellyfish ends in two rounds.
86-90	Skin purged from chest and several ribs. 20 hits, 10 hits/rnd. -50 all actions.	Direct strike blots out chest. 22 hits, 11 hits/rnd. Foe downed for 7 rds, then at -55.	Strike to chest splatters room with filthy gore. 26 hits, 13 hits/rnd. Foe operates at -60.	Left half of target's chest blown to mist. Foe dies of shock in two rds. +75 hits, -80 all actions.	Target's chest cavity laid open to lungs. Death is painless and instantaneous.
91-95	Left foot vaporized. 22 hits, 11 hits/rnd. Target at -50.	Left leg disintegrated to knee. 24 hits, 12 hits/rnd. -60 to all actions.	Left leg completely disintegrated. +30 hits, 15 hits/rnd. -75 to all actions.	Right leg and hip completely disappear. Many organs dangle. Target hobbles in a tight circle before dying in 3 rds.	Target's trunk annihilated as head alights between legs. Disparate limbs follow and pelt skull for an additional 20 hits.
96-99	All flesh wiped from face. 22 hits, 11 hits/rnd. Foe loses all sensory functions. -55 to all actions.	Random sections of face and head disintegrated. Foe drops and dies in 3 rounds.	Left side of foe's face obliterated. Foe dies screaming in 1 round.	Front half of target's head devoured. Brains become optional.	Foe's head vaporized. Ears flutter downward and stick to shoulders.
100	Weapon arm erased to shoulder. 24 hits, 12 hits/rnd. -90 to all actions due to shock.	Foe's legs consumed, dropping torso on stumps. Victim bleeds violently two rounds before dying.	Upper half of body mysteriously vanishes, leaving hips and legs standing upright.	Foe writhes in mortal agony as he dissolves in a multitude of slow, soft, puffs of flesh.	Attack disassembles target from head to toe, taking 6 rds. to do so. Anything touching target must make a RR or suffer the same fate. Nothing remains.

NEURO CRITICAL STRIKE TABLE (12.7)

	A	B	C	D	E
01-05	Mild discomfort. 0 hits.	Sudden jolt. 0 hits. Foe stunned one round.	Strange pain in chest. +1 hit. Stunned 3 rounds.	Nervous twitch. +3 hits.	Racked with severe pains. +5 hits.
06-10	Target's facial muscles twitch violently for 5 rnds; mildly distracting. Foe at -20.	Bladder failure. +5 hits. How humiliating.	Sudden dizziness. Stunned five rounds.	Fingers of left hand fall asleep. -5 to all actions.	Upset stomach. -10 to all actions. +10 hits.
11-15	Target forgets his friends' names.	Sudden rush of random sensations. Stunned 5 rounds. +5 hits.	Foe cannot taste or smell for one day.	Target flees in fear or five rounds crying out for his enemies not to hurt him.	Target experiences chills. -20 to all actions.
16-20	Vertigo. -15 to all actions. +10 hits.	All target's skill ranks reduced by 5 for one round.	Foe unsure of what to do. +10 hits. Stunned 7 rounds.	Target's primitive urges take over and he acts like the species he evolved from for 12 hrs.	Target suffers blinding headache for 3 rounds. -40 to all actions till it passes.
21-35	Minor hallucinations. Stunned and unable to parry for 3 rounds.	Target loses all sense of direction and time. Target is at -30 to all actions.	All targets skill ranks reduced by 3 for three rounds.	Target cannot swallow. Target begins to choke on his own spittle. Foe at +30.	Target has debilitating cramps. -30 all actions. +15 hits.
36-45	Minor, but painful, neck spasms. -10 all actions. +10 hits.	20% of remaining hits removed.	Target is stunned for 8 rounds.	All targets skill ranks reduced by 3 for four round.	Target loses ability to feel. -30 to all actions. +20 hits.
46-50	Foe feels extremely warm and begins to perspire. Foe is at -35.	Target loses confidence and will not attack for three rounds.	30% of remaining hits removed.	Target is suddenly very nervous. +20 hits. -30 to all actions.	Target's eardrums burst. +20 hits. 3 rounds of stun.
51-55	Target foams at the mouth for 5 rounds. -15 all actions. Gross.	All targets skill ranks reduced by 5 for five rounds.	Target racked by severe hunger pangs. -45 to all actions.	Target violently blows lunch. 50% remaining hits removed.	Target permanently loses sense of smell. +20 hits.
56-60	Wild shot intercepts the head rendering the target colorblind. Foe is at -40.	Target cannot speak for 10 minutes.	All targets skill ranks reduced by 5 for seven rounds.	Target cannot hear for 24 hours.	Target's optical cortexes burned out. -75 to all actions. +20 hits.
61-65	Target forgets how to use favorite weapon for 10 rounds.	Target inexplicably falls asleep.	Target suffers from convulsions for four rounds. +25 hits.	All target's skill ranks reduced by 5 for 10 rounds.	Target suffers major hallucinations for 10 rounds. -70 to all actions.
66	Foe adamantly believes he rules the world. Delusion lasts 24 hours. +10 hits.	Targets head paralyzed. +30 hits. Stunned no parry 10 rounds. Eye damage in 5 minutes.	Foe suffers permanent, complete amnesia. All skills are retained, but target can't remember what they are.	Foe becomes a mindless, drooling idiot for the rest of his mortal days.	Target suffers massive coronary and dies instantly. +100 hits.
67-70	Target becomes obsessively paranoid; believes friends are out to get him.	Target loses control of legs. -40 to all actions. +15 hits.	Arms paralyzed. -50 to all actions. +20 hits.	Both feet feel as if they're missing. -20 to moving maneuvers. +10 hits.	Target has major seizure and is totally helpless for 5 rounds. -50 all actions. +35 hits.
71-75	Target begins crying uncontrollably. -30 to all actions. +10 hits.	Target sneezes uncontrollably for 10 rounds. -40 all actions. +10 hits.	Target loses control of entire lower body. -55 to all actions. +25 hits.	Both target's arms fall asleep. -40 to all actions. +15 hits.	Digestive system fails. Foe dies in 3 days. +30 hits.
76-80	Targets forgets favorite combat tactics. Foe's DB & OB are reduced by 30 due to confusion.	Dangerous synaptic overload forces target to the ground. +30 hits. Stunned 10 rounds.	Chest tightens and target cannot breathe. Foe at -55 for six rounds, then slips into unconsciousness.	Target's skin becomes super-sensitive. X2 all hits received. Wearing clothes is agony. Foe is at -60.	Target's sense of balance is permanently reversed. Foe is at -80 to all actions. Massive confusion.
81-85	Target becomes epileptic; 25% chance to have major seizure under stress.	Chest falls asleep. -40 to all actions. +10 hits.	Hands tighten into painful fists while arms flail about. -45 to all actions. +20 hits.	Targets sense of balance(up/down) is reversed for two days. -75 to all actions. +25 hits.	Kidney failure. Foe slowly dies in one day. +30 hits.
86-90	Sensation of drowning. Target's DB is halved.	Target is mysteriously unconscious and unawake for three rounds.	Target's entire voluntary muscle system fails. He plops quivering to the ground, wondering what has happened.	Entire head falls asleep. -75 to all actions. +20 hits. Stunned 8 rounds.	Extreme adrenal rushes; foes heart bursts after 3 rounds of +50 activity.
91-95	Foe loses sense of strength. -55 to all actions.	Severe cramps in all joints. +40 hits. Foe operates at -60.	Foe suffers from double vision. All attack and skill rolls are halved.	Target loses control of entire upper body. -90 to all actions. +30 hits. Stunned no parry 10 rds.	Target's lungs collapse. Unconscious in 3 rounds; death in 10. -60 to all actions. +40 hits.
96-99	Target cannot breathe unless he concentrates to do so. Foe reduced to 50% action.	Target falls into raging fit for 10 rounds, then dies of exhaustion.	Target's entire body goes numb. -100 all actions. +40 hits. No pain, no gain.	Target's nervous system lights up like a christmas tree. 100% of remaining hits removed due to pain and shock.	Heart failure. Target dies in 5 painful rounds. -100 to all actions. +50 hits.
100	Foe is permanently blinded and at -90 to all actions requiring sight.	Foe completely paralyzed; reduced to most basic functions. Foe can only drool in rage.	Memory and skills completely erased; target completely forgets who he is or what he can do and wanders off in a daze.	Entire circulatory system fails. Foe begins turning odd shades of blues and greens. Foe dies in two rounds.	Foe's entire nervous system shorts out. Foe dies after five rounds of mindless, screaming agony.

TELEPORTER RESULTS TABLE (12.8)

175+ Total and Absolute Success: The teleported target is refreshed and completely disinfected of foreign life forms (e.g. bacteria, viral infections, etc.). Large parasites such as leeches, tape worms, etc. will be teleported due to their mass.

160–174 Success: Static electric charges dance over the target's body and all hair stands on end. The target is stunned by extreme tingling sensations for two rounds.

150–159 Near Success: The target is disoriented for 10 rounds. (–30 to all attempted actions during this time.)

140–149 Near Success: Target appears, but some of the possessions have been lost in transport (e.g. jewelry, clothing, weapons, money, packed gear, luggage, etc.). The GM should roll a percentile die to determine the percent of the teleported matter lost in transit.

130–139 Altered Position: Target appears in a different position and falls to the floor. Make a roll on the following chart to determine modifier for Fall Attack.

01–10 Backwards– No fall.

11–40 Diagonal– +10 Fall

41–80 Horizontal– +15 Fall

81–100 Upside down– +20 Fall

123–129 Partial Success: Target teleports but suffers an 'A' Disruption critical due to molecular imbalance.

117–122 Partial Success: Target appears but suffers a 'C' Disruption critical due to a molecular imbalance.

111–116 Partial Success: Target arrives on the scene, but suffers an 'E' Disruption critical due to a molecular imbalance of high magnitude. (Hopefully it's not too bad.)

101–110: Target appears on the scene and vanishes. Spend two rounds recalibrating all of the coordinates in the instrument and try again. (It was close, but close don't cut it!)

90–100: Operator loses the lock-on and must spend three rounds recalibrating, and two more for a quick systems scan.

80–89: Operator successfully locks on and proceeds with transport. However, the successful lock-on is on the wrong target. The operator must attempt the teleportation of the nearest non-teleporting person, creature (or object, if nothing else is available). Hope it's friendly and won't be too upset. Roll again ignoring this result.

70–79: The target automatically returns to the original site of lock-on. Due to the strain of the failed transmission, the target suffers a 'C' shock critical.

60–69: Target arrives at the intended destination. Much to his surprise, a body limb is missing. Target suffers an 'E' shock critical.

01–12: Lower left leg, –50 to moving maneuvers

13–24: Lower right leg, –50 to moving maneuvers

25–36: Entire left leg, –80 to moving maneuvers

37–48: Entire right leg, –80 to moving maneuvers

49–60: Left forearm, –70 if left-handed.

61–72: Right forearm, –80 if right-handed.

73–84: Entire left arm, –80 if left-handed.

85–96: Entire right arm, –80 if right-handed.

97–100: Head gone, target drops dead upon arrival.

20–59: All goes well as the target begins transit. All proceeds normally at the destination with one exception: the target does not arrive. Recalibration shows no target on either end. Target has been lost during transmission and is unretrievable.

10–19: Target is the victim of massive molecular disruption. The target arrives at the destination as a bright glowing mass. With a display of energy bolts and loud crackling sounds, the victim is atomized one round later.

–10 — (–9): One half of the target arrives at the destination point. Which half, you ask? Well, a little bit of everything, to be exact. The rest of the target is lost during transport. The victim is quite obviously dead (even the advances in medical technology cannot help a running mass of pulp).

–25 — (–11): Target arrives turned inside out although completely intact. The mass twitches grotesquely for 5 rounds and then dies beyond all medical care.

–40 — (–26): Target is mingled with a nearby organism accidentally picked up in the transmission. The resulting genetic combination is a misshapen monster which attacks the nearest target upon arrival. (If the target is an inanimate object, or combining material is inanimate, the result is a lifeless lump of matter.)

–100 — (–41): A blob of screaming flesh and slime reaches out pseudopods in agony. The gruesome display lasts three rounds and the victim is dead. All present are stunned four additional rounds and will gain severe phobias of being transported in such a fashion. (Such an incident could destroy an operator's career, unless he has a very good psychiatrist.)

–101 & down: The target's molecules mingle and join with the nearby surface (e.g. the ground) resulting in instant death. The instantaneous expansion of mass results in an explosion. All within 15 meters must take an automatic/shrapnel attack, (within 3m = +50, 6m = +30, 9m = +10, 12m = +0, 15m = –30). If the target is arriving in the teleporter, he is combined with the floor or ceiling, and the teleporter is completely destroyed.

TELEPORTER RESULTS TABLE MODIFIERS

Alien Control Systems	–150
Energy Shields	varies
Homing Beacon	
yes	+20
no	–100
Ion Storms	
Mild	–10
Moderate	–25
Severe	–45
Magnetic Storm Fields	
Mild	–20
Moderate	–35
Severe	–60
Moving Target	
Pace x 5	–5 to –25
Multiple Subjects	
Per add. subject	–15
Range	
Based on antifocus	varies
Obstructing Barriers	
Per 15 m	–10
Sync Teleporters	+50

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