

SPACEMASTER: DATANET™

Issue #2

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Table of Contents

Introduction	1
Radiation Rules	2
Gravity	6
Fun 'N Games: Recreation in the ISC	9
The Sensenet	9
The Datanet	11
Sports	11
Other Activities.....	13
The Arts & Literature	13
Black Market Tech	14
Legends of the ISC: The Mad Queen	15
Radiation Critical Strike Table	16

Introduction

Welcome to the second issue Spacemaster Datnet. The purpose here is to expand and enhance your Spacemaster game, both by broadening the rules and by deepening the setting details, giving you a richer and more fulfilling game and game environment. The last issue added many great rules to your game, and we've tried to keep the standards high in this one.

This issue we outline radiation rules, gravity, and we flush out a little more information on what it's like to live in the ISC. Of course we've included more Black Market tech. We hope you have as much fun using this material as we had producing it.

Enjoy.

WARNING! All Items in this PDF should be considered optional and completely unofficial.

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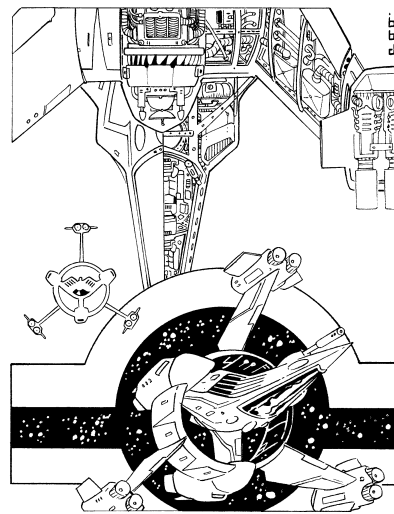
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RADIATION RULES

Particle Radiation: Also known as hard radiation, this radiation is caused by the decay of unstable elements. Typically, hard radiation comes in the form of alpha particles, which are essentially helium nuclei (two protons, two neutrons). This is the most dangerous form of radiation.

Electromagnetic Radiation: This is essentially light, in all its different forms. X-Rays, Gamma Rays, and Microwaves are all electromagnetic radiation. Though damaging, it takes a very large dose of electromagnetic radiation to cause damage (of course, there is a lot more electromagnetic radiation).

There are a lot of myths about radiation and there are a lot of harsh realities. Mutants, giant insects, and miraculous super powers are all the stuff of '50's pulp science fiction. Cancer, nausea, epilation, sterility, and neural damage are the stuff of real radioactive damage. We address both, to some extent, below.

REALISTIC EFFECTS

We could launch into a great deal of complicated explanation to describe the different methods of measuring radiation: Rads, REM, and roentgens, but only one of these is really necessary to a role playing game.

REM stands for Roentgen Equivalent, Man. This is the rating of the biological impact of radiation. It's generally equivalent to a rad or a roentgen. The REM represents the cumulative damage a person has taken during their lives. It's essentially a rating, like Hits, showing just how much radiation damage a character has taken in his life.

Therefore, to accurately depict the effects of radiation, the only necessary information is how many REM the character has taken. Write the information down on the character's record to keep track of the cumulative effect.

HOLOCAUSTIC WEAPONS

Holocaustic weapons will be the most common cause of radiation in most campaigns. The damage caused by holocaustic weapons comes in two stages: Initial Blast and Fallout.

To work out both of these effects, you must first determine the blast radius. The size of the warhead shows the size of the blast radii. Measure them from ground zero.



INITIAL BLAST

When the warhead initially detonates, it releases a tremendous burst of radioactivity. The dose of REM the character absorbs depends on their distance from the blast. Compare the character's blast radius to Dose in the REM Table, below.

This is the amount of radiation the character takes in REM. If the character is in a bunker or specially shielded area, consider them one blast radii farther away.

BLAST RADII TABLE (ATMOSPHERE)						
Mark#	Megatons	Blast Radius (in Kilometers)				
		1st	2nd	3rd	4th	5th*
6-10	.1-.2.	.1	.2	.3	.4	.5
11-20	.21-.99	.25	.5	.75	1	1.25
21-30	1-50	.5	1	1.5	2	2.5
31-40	51-150	1	2	3	4	5
41-50	151-300	2	4	6	8	10
51-60	301-500	3	6	9	12	15
61-75	501-750	4	8	12	16	20
76-100	751-1000	5	10	15	20	25

*Subsequent blast radii continue at this rate.

BLAST RADII TABLE (VACUUM)						
Mark #	Megatons	Blast Radius (in Meters)				
		1st	2nd	3rd	4th	5th*
6-10	.1-.2	25	50	75	100	125
11-20	.21-.99	63	125	188	250	313
21-30	1-50	125	250	375	500	625
31-40	51-150	250	500	750	1,000	1,250
41-50	151-300	500	1,000	1,500	2,000	2,500
51-60	301-500	750	1,500	2,250	3,000	3,750
61-75	501-750	1,000	2,000	3,000	4,000	5,000
76-100	751-1000	1,250	2,500	3,750	5,000	6,250

*Subsequent blast radii continue at this rate.

FALLOUT

The lingering effects of a holocaustic blast are caused by the fallout. *Where* the fallout occurs depends on the wind patterns and the GM will have to judge depending on the conditions. It can occur for dozens of kilometers away from the blast. The first two blast radii always have fallout, but fallout equal to the second blast radii's fallout can occur anywhere the GM decides.

Fallout consists of radioactive dust and debris¹. It also consists of any metal object which was exposed to the radioactive blast (which is everything that was in the area at the time).

As a rule of thumb, fallout starts at 10,000 REM, per hour. This deteriorates according to the seven-ten rule which states that for every multiple of seven the time increases, the dose decreases by 10. See the table below:

FALLOUT OVER TIME TABLE	
Time After Detonation	Level of Radiation
1 Hour	10k per Hour
7 Hours	1k per Hour
49 Hours	100 per Hour
14.3 Days	10 per Hour
100 Days	1 per Hour
700 Days	.1 per Hour



DOSAGE EFFECTS

Every time a character receives a significant dose of radiation (GM's discretion, 10% current REM or whenever total REM enters a new level of the chart is a good rule of thumb) the GM needs to check to see what effects the new dose has on the character's body. This is done with a simple critical roll.

The Dosage Effects Table, below, gives the appropriate criticals for each level of dosage. Roll this critical (see *Blaster Law p. 22*) and apply any indicated modifiers and a bonus equal to the amount of REM taken in the single dose. The result on the critical table is the effect of the character's dosage.

If a subsequent roll determines a result less damaging than one already rolled, compare the symptoms. If the symptoms are already duplicated by the more severe effect, then ignore the result. If not, then the character picks up these new symptoms as well.

DOSAGE EFFECTS TABLE	
Total REM	Critical
Less than 20	A-50
21-75	A-25
76-100	A
101-150	B
151-200	C
201-300	D
301-400	E
401-500	2 E's*
501-600	3 E's*
600-2,000	4 E's*
2,001-3,000	5 E's†
3,001-4,500	6 E's‡
4,501+	Instantly Fatal
*Roll each of these "E" criticals separately	
†Even if the character survives these criticals, they will die in a matter of minutes from damage to nervous system.	
‡Even if the character survives these criticals, they will die in a matter of seconds from damage to nervous system.	

It should be noted that according to these charts, it's almost impossible to take a significant dose of radiation from the initial blast of a nuke, in atmosphere. The reason for this is simple: in an atmosphere, if you stand close enough to a nuke to take a dose of radiation, you're already dead from the shock wave or fireball.

BLASTER LAW

There are optional rules in *Blaster Law* that allow blasters to cause radiation damage. When using these rules, simply divide the damage by a number, we recommend 10, and apply that many REM to the target. For instance, an attack causing 32 hits would also inflict 3.2 REM.

NUCLEAR GRENADES

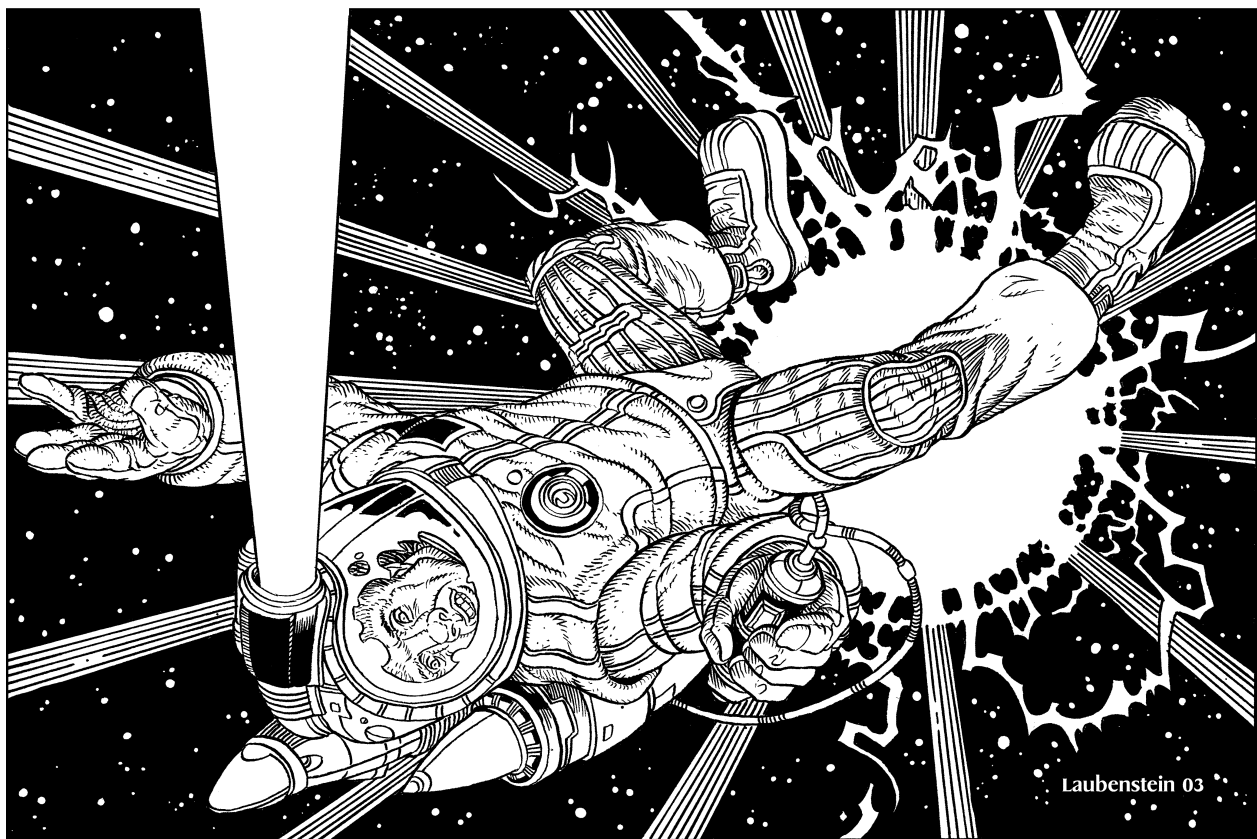
This rule will make nuclear grenades even more brutal. Although it's almost impossible to get a lethal dose of radiation from a holocaustic nuclear blast, nuclear grenades are much smaller in scale and therefore the atmospheric pressure is proportionally greater, and the weight of air pushes back against the shock wave effect. Because of this, the radioactive effects of a nuclear grenade are much more dangerous than the blast of a larger weapon. Use the Grenade Column on the table above to represent these effects, when in an atmosphere.

LONG TERM EXPOSURE

In addition to the effects of short term exposure, a long but low-level exposure to radiation will trigger a critical. Roll a critical whenever one of the characters sets off one of these triggers:

- If the character takes 5 REM in a single year.
- If the character takes 3 REM in a single quarter.
- .2 REM/Month for two years.

Example: Matt has taken 22 REM throughout his life. He had to take one critical previously when he hit 21 and entered a new level on the chart, but it had no effect. While on a mission, he is EVA during a sensor malfunction. Because of this, he doesn't see the solar flare. He takes 150 REM, raising his total on the chart to 172. The GM makes him make one roll for every time he went up a step on the table (on A, one B, etc.), so the GM rolls an A for when he hit 76, a B for when he hit 101 and a C for when he hit 151. The GM rolls a 25 on the A, causing no damage. He rolls a 22 on the B, again, causing no damage. He rolls a 58 on the C. Matt will die of cancer within the year. This is why Matt usually plays androids.



DOSE IN REM TABLE											
Radius	Dose Atm.	Dose Vac.	Grenade	Radius	Dose Atm.	Dose Vac.	Grenade	Radius	Dose Atm.	Dose Vac.	Grenade
1st	400k	400k	400k	31st	neg.	416	neg	61st	neg.	107	neg
2nd	590	100k	133k	32nd	neg.	391	neg	62nd	neg.	104	neg
3rd	147	44k	44k	33rd	neg.	367	neg	63rd	neg.	101	neg
4th	.74	25k	15k	34th	neg.	346	neg	64th	neg.	98	neg
5th	.2	16k	5k	35th	neg.	327	neg	65th	neg.	95	neg
6th	.1	11k	1,646	36th	neg.	309	neg	66th	neg.	92	neg
7th	neg.	8k	548	37th	neg.	292	neg	67th	neg.	89	neg
8th	neg.	6k	182	38th	neg.	277	neg	68th	neg.	87	neg
9th	neg.	5k	60	39th	neg.	263	neg	69th	neg.	84	neg
10th	neg.	4k	20	40th	neg.	250	neg	70th	neg.	82	neg
11th	neg.	3,306	7	41st	neg.	237	neg	71st	neg.	79	neg
12th	neg.	2,778	2	42nd	neg.	227	neg	72nd	neg.	77	neg
13th	neg.	2,367	.7	43rd	neg.	216	neg	73rd	neg.	75	neg
14th	neg.	2,041	.2	44th	neg.	207	neg	74th	neg.	73	neg
15th	neg.	1,778	neg	45th	neg.	198	neg	75th	neg.	71	neg
16th	neg.	1,563	neg	46th	neg.	189	neg	76th	neg.	69	neg
17th	neg.	1,384	neg	47th	neg.	181	neg	77th	neg.	67	neg
18th	neg.	1,235	neg	48th	neg.	174	neg	78th	neg.	66	neg
19th	neg.	1,108	neg	49th	neg.	167	neg	79th	neg.	64	neg
20th	neg.	1k	neg	50th	neg.	160	neg	80th	neg.	63	neg
21st	neg.	907	neg	51st	neg.	154	neg	81st	neg.	61	neg
22nd	neg.	826	neg	52nd	neg.	148	neg	82nd	neg.	59	neg
23rd	neg.	756	neg	53rd	neg.	142	neg	83rd	neg.	58	neg
24th	neg.	694	neg	54th	neg.	137	neg	84th	neg.	57	neg
25th	neg.	640	neg	55th	neg.	132	neg	85th	neg.	55	neg
26th	neg.	591	neg	56th	neg.	128	neg	86th	neg.	54	neg
27th	neg.	549	neg	57th	neg.	123	neg	87th	neg.	53	neg
28th	neg.	510	neg	58th	neg.	119	neg	88th	neg.	52	neg
29th	neg.	476	neg	59th	neg.	115	neg	89th	neg.	50	neg
30th	neg.	444	neg	60th	neg.	111	neg	90th*	neg.	49	neg

*For a quick and dirty method of extending this chart past 92nd blast radius (for vacuum radiation), drop the REMs by one for each additional radii. For a more accurate member, divide 400,000 by the square of the radius, e.g. 400,000/(93*93).

SHIELDING

Characters can shield themselves from radiation with lead shielding or force shielding. Lead shielding is heavy. Wearing a lead suit adds a maneuver penalty equal to 1/5 of the REM per day it blocks. This is considered heavy armor for the maneuver in armor skill (the minimum maneuver penalty is equal to ten percent the maximum maneuver penalty).

Force shielding will stop radiation as well. It will stop five times its DB vs. projectiles in REM per day from particle radiation. Against electromagnetic radiation, the

shield will stop five times its DB vs. Energy weapons in REM per day.

OTHER DOSAGES	
Annual Exposure (at sea level)	.2
Annual Orbital Exposure (unshielded)	35
In space during a solar flare	100-200
Annual exposure working at a reactor	0
During a reactor refit	.0001

GRAVITY

Once man flees from the shackles of a planetary body, the subject of gravity and its effects becomes very important. It's easy to take gravity for granted. How should a GM deal with micro gravity? What about heavy gravity? What are the effects of gravity on health? On childhood development? On fetal development?

Sooner or later the GM will have to deal with these questions or make a conscious decision to ignore them. His decision has a lot to do with the feel of his campaign.

In a Space Opera campaign, gravity can be more or less ignored. All ships are assumed to have artificial gravity. All planets are assumed to have about one g of surface gravity. The only time gravity rears its head in a Space Opera campaign is when the GM wishes to introduce some high-g, superhuman bad guy.

In hard science fiction gravity should always be at the forefront of everyone's mind. It is for the hard *sf* campaigns that this section exists.

HIGH-G ORIGIN

Sf stories are filled with people from high-g worlds. How the GM deals with this, or even if he needs to, depends a great deal on his campaign. It is recommended that these origins not be allowed to players unless they're being allowed as talents (see *Future Law*).

Some characters will be from worlds where gravity is about 1.5 to 2 gs. These characters will have a shorter life (maybe 75% normal), but several advantages. They will receive a special bonus of +5 to their constitution and Strength. Reduce all crushing, unbalancing, and impact criticals by one level (an A becomes an A-25). They also receive only 75% of any penalties for high-g maneuvers. However, this has a noticeable effect on the character. They are only 75% of their rolled height. In addition, they receive a -5 penalty to their presence.

Some characters will be from higher-g worlds, say 2 gs or more. The effects of this will be similar, though greater, than the effect of a lesser high gravitational field. These characters receive a special +8 bonus to their constitution and strength. Reduce all crushing, unbalancing, and impact criticals by two levels (an A becomes an A-50, a B becomes an A-25). These characters function better in high g. Correspondingly, all penalties from high gravity are halved as they are only 50% of their rolled height. In addition, they receive a -8 penalty to their presence. Finally, they'll live only about 50% as long as racial average.

LOW-G ORIGIN

If worlds with high gs have been colonized, then worlds with low gs have probably been colonized as well. In fact, with Mars right here in our own Solar System, low-g worlds will probably be colonized first. How should a GM handle these?

If a character was raised of a world with .5 to .75 gs, then there will be a biological effect. These characters receive a special penalty of -5 to your Constitution and Strength. Increase all crushing, unbalancing, or impact criticals by one level (an 'E' becomes an 'E' and an 'A'). In addition this will have a noticeable visible effect. These characters would be 125% of their rolled height. Also, they receive a -5 penalty to their presence. Also, these characters would have major issues acting in high gs. Multiply all penalties for high gs by 1.5. Finally, they'll live about 125% as long as racial average. This would be a terrible flaw to impose on a character.

Mars for instance, is about 1/3 g. This is another level of low-g origin (including all character from worlds less than half a g). These characters receive a special -8 penalty to their Constitution and Strength. Increase all crushing, unbalancing, and impact criticals by two levels (a 'D' becomes an 'E' and an 'A', an 'E' becomes an 'E' and a 'B'). The character would probably be about 150% of their rolled height. In addition, they'd receive a -8 penalty to their presence. These characters are terrible at operating in high gs. Double all penalties from high gs. Finally, they'll live about 150% as long as racial average.



MICRO-G ORIGIN

Also known as Zero-g, a Micro-g origin is almost too terrifying to consider. A human being raised in micro-g is huge, deformed, and fragile. They are utterly unable to survive in gravity, and even pushing off wall in free fall exhausts the poor creature.

It is unlikely that a character of micro-g origin is fit to be a player character. These beings would be better suited to NPCs and background scenery.

LIFE IN FREE FALL

In most *sf* games, the characters will have to spend some time in free fall. In some campaigns, this will be most of the time characters are in space. In others, it will only be when the artificial gravity is out.

Either way, the GM needs to be prepared to handle it. It's the purpose of this section to deal with the realities of free fall.

All the rules in this section are optional. In a Space Opera campaign, the GM may not care whether stats deteriorate in free fall. In a hard *sf* campaign, it can be a crucial element of play.

DETERIORATION

The biggest problem with free fall is the lack of exercise. Muscles atrophy, the heart becomes lazy, and bones grow brittle. It's up to the GM to police these effects and make sure they stay realistic.

Stat deterioration is handled in much the same way in space as it's handled in death. See *SM:P*, p. 107 for the specific details.

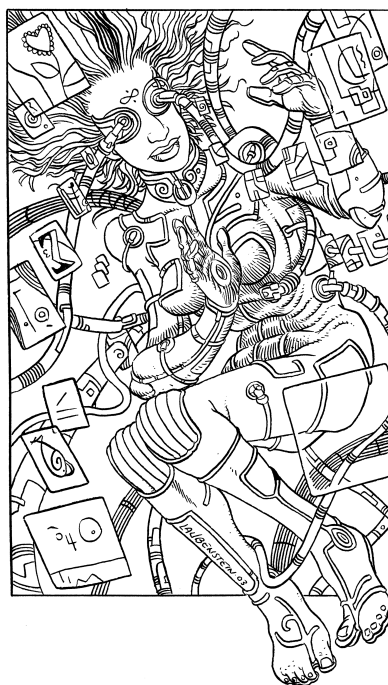
Every day that the character is in free fall, without exercise, his strength and constitution deteriorate (only temporary stats deteriorate). The only thing that can stop this from happening is exercise, and lots of it.

Each day that a character is in free fall, they must make a SD moving maneuver (not a static maneuver). This is a Medium maneuver. If this is a success, then the character's stats do not deteriorate. If it is a failure, they do. If it is a percentage (less than 100), this is the chance that they do not deteriorate, and the second roll is necessary.

This all assumes the ship is equipped with proper zero-g exercise equipment and the character is following a careful regimen of exercise. What if the ship isn't equipped?

The character can still attempt a maneuver, but this one is absurd (yes it does increase the chance of injury, but the character is probably having to fling himself around the ship for exercise). A lot of creativity can go into zero-g calisthenics, and a GM should reward particularly creative innovations with a drop in difficulty.

The same stands for using a gym not designed for zero-g. The GM should assign a difficulty, somewhere between Medium and Absurd. Handle the rest normally.



A final note, assume that it takes a strength equal to ten percent a character's weight in kilograms to carry his own weight. A character's strength and constitution cannot drop below one.

FETAL DEVELOPMENT

Zero-g fetal development is, if anything, worse than zero-g adolescent development. The human fetus needs gravity of some sort to develop properly. The birth defects of a zero-g child are staggering. Therefore it would behoove most races to make certain that their pregnant women (or females) reside in a gravitational field or simulated gravity (such as that caused by centrifugal effect) throughout the term or pregnancy.

The bottom line is they have to go somewhere. Bringing a child to term in zero-g is probably less responsible than bringing a child to term smoking Crack.

MEDICAL AND LIFE-SPAN IMPLICATIONS

Despite its many harmful aspects, there are some great uses for zero-g. Zero-g can extend the life of inoperable heart patients. It can ease the recovery of full body injuries (the person doesn't have to pick a side on which to lay.) The medical implications of zero-g are too long to cover here and the GM will have to consider them on a case by case basis.

Life span is another matter. Use the following guidelines:

- 1) Reduced, but not non-existent, gs have less biological impact on a life form (there's less wear and tear).
- 2) Increased gs have a greater biological impact on a life form (more wear and tear).

Micro gravity, though it reduces the wear and tear on a life form, also cripples the life form in many ways. This can have dramatic physical effects.

Since the third point is the easiest to deal with, we'll discuss it first. No additional mechanics are necessary to represent these effects. As a character's constitution plummets, his susceptibility to disease and injury increases. See above.

As for the extending effects of low gs, assume that for every .1 below one g, the character will live 10% longer. For instance, living in .6 g would increase a character's life by 40%.

For living in increased gs, on the other hand, divide the character's life span by the number of gs. For instance, if the character is in 3 gs, his life span is reduced to one third.

This doesn't mean that if a character lives at this level of gravity for one month it will affect him much. But one month at two gs is equal to two months at one g.

G TOLERANCE

Living under the strain of high gs is dangerous. It's even life threatening. People were not meant to live at high levels of gravity.

Exposure to high gs is unpleasant. It requires a resistance roll, every round, just to stay conscious. This is considered a level 1 attack on the character. The character's RR is modified by three times their Co, but the roll is penalized by ten times the gs pulled. High gs are considered four or more. If the RR fails, the character passes out for one second for every five points of failure.

Example: Aaron's new, first level character is on the bridge of the Deft Hand when the pirates crank the artificial gravity up to 5 gs. This requires Aaron to roll an RR with a 50% chance, of success, but with a -50 penalty.

High gs can be very dangerous. For each point of failure over one hundred, the character takes one hit.

These rolls continue until the gravity stops or the character dies.

FALLING DAMAGE AND GS

Occasionally a GM will have to deal with a character falling in a gravity field other than one g. Dealing with this is very simple.

The GM handles the fall normally. The distance fallen, however, is multiplied by the amount of gs pulling the character down. For instance, a 2 meter fall in a 3 g field is acts exactly like a 6 meter fall on Earth.

MANEUVERS IN A STRONG G FIELD

If a character attempts a maneuver in a strong g field (anything more than one g) he should be penalized according to the strength of the field. Determining the amount of the penalty is fairly straightforward.

For every .1 g above a normal, Earth gravity, all maneuvers are penalized by -5. Therefore, a maneuver at 1.7 gs is penalized by -35. A maneuver at 2.3 gs is penalized by -65.

High gs make even the simplest tasks dangerous. In gravitational fields of 2 gs or greater, the GM should force characters to make maneuver rolls for nearly any task, especially standing up or sitting down.

In most military ships, crewmembers that must travel under heavy acceleration do so in specially made chairs. These move much like electric wheel chairs.

ARTIFICIAL GRAVITY

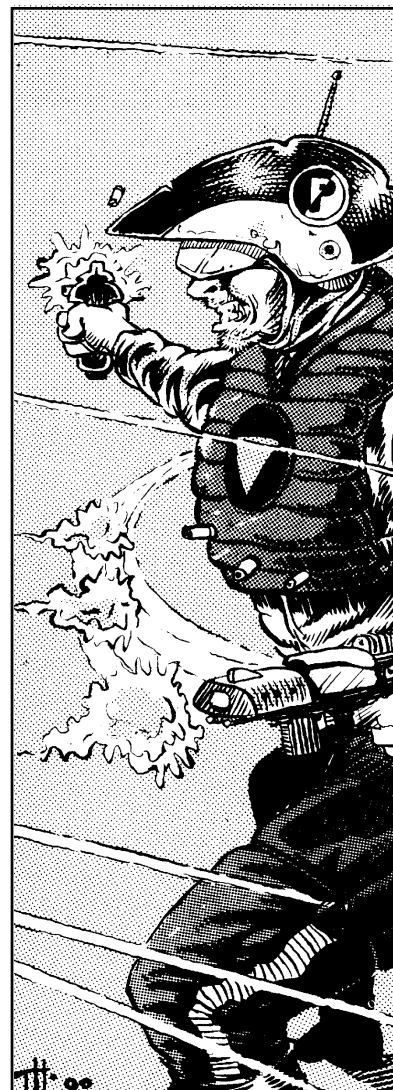
In many campaigns, artificial gravity will exist. Artificial gravity solves many of the problems outlined earlier in this section.

Artificial gravity should be treated as real gravity in every way. It is up to the GM to determine the exact details of any artificial gravity technology in his universe.

ACCELERATION

Einstein's Theory of General Relativity states that gravity and acceleration are, for all intents and purposes, identical. Acceleration is often used in spacecraft to simulate gravity.

In these craft, the rear of the craft is designed to be "down." Meanwhile, the ship accelerates at 1 g (9.8 meter/second/second). To those inside, this acceleration feels exactly like "normal" gravity.



FUN 'N GAMES: RECREATION IN THE ISC

Every sapient creature seems to have two primary states: working and seeking pleasure. How one seeks pleasure has to do more with their personality and race than anything else. For some, it is a play or a movie. For others it is reading a technical manual. For others it is dancing. For others it is a fast-paced Sensenet game.

The following sections discuss the various common forms of recreation in the ISC.

THE SENSENET

Also properly called the Sense Net, this is a giant, virtual universe, spanning the entire ISC. Over the years, the Sensenet has become a major facet of ISC life. Experts attribute this to two major facts. Virtual Estate is cheaper than Real Estate. Real estate costs money, but anyone can get on the Sensenet with a decent desktop computer, a little software, and a power line.

The Virtual Universe knows no bounds. One can access virtual estate from anywhere, as the net is linked in a quantum comm net. This has many benefits. For example: though the House of Commons has a building in the Capital, it is only used for impeachment proceedings. The House actually meets in a virtual version of this building, allowing the Representatives to log in from their own living rooms.

The Sensenet has many other functions too. It features the hottest clubs, the coolest games, the neatest

sights, and accurate, virtual life recreations of historical events. Everything's on the Sensenet. It's made movie theaters and televisions obsolete, and has taken over as the premier recreational venue.

Many people spend a good deal of their time on the Sensenet. One can find all forms of recreation there. Want to watch a holo? Find it on the Sensenet. Want to play a fully interactive game? Play it on the Sensenet? Need combat training and don't have the space to practice? Try the Sensenet.

The Sensenet is ruled by law just like any other thing in the ISC. Most Sensenet laws vary from system to system. If gambling is illegal in the system, it will be illegal in the Sensenet there as well. The quantum comm net is a bottleneck, and more expensive to use, so most of the time, people remain in their local system of the Sensenet.

The Sensenet can be found most everywhere. Even ships have their own versions of the Sensenet. These might be somewhat restricted in their usage, but they are there. On planetary Sensenet nodes, most any program can be found. When a new program is made, it propagates quickly through quantum comm net, and is available everywhere in a few days.

Aside from accessing things through the quantum comm net (if you want to gamble or have to access another system's net, for instance), most areas of the Sensenet cost no extra money. A person's monthly fee is divided proportionally among the different programs he uses. If a person spends thirty percent of the time in clubs, and the rest in the hottest new massive multiplayer virtual reality game, then the clubs would get thirty percent of the person's fee and the rest would go to the companies that make the game.

The standard rate for the Sensenet is two credits a day (paid in monthly installments). Accessing the comm net costs a credit an hour or more (depending on the distance).

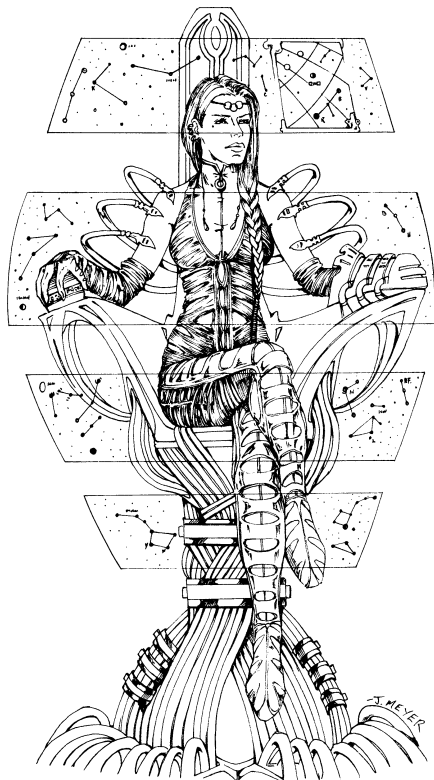
NEURAL INTERFACE

A neural interface can be achieved with a minimum of equipment. Whereas it used to require a hardwired neural jack, it can now be achieved with a headset the size of a pair of sunglasses (in fact, many are made to look like normal sunglasses).

A neural interface is a completely realistic experience. The user cannot distinguish between it and reality (unless the experience has been programmed to look artificial or the designer was lazy). The user can usually adjust the levels of experience, editing out pain, etc.

SENSENET ADDICTION

A big problem in the ISC is Sensenet addiction. Many people spend hours a day on the Sensenet. Most systems monitor usage to determine level of addiction and have mandatory social programs which kick in at certain thresholds. Other worlds (especially those where the population doesn't use it very often) pay no attention



to addiction, and the person in question or their friends must seek out rehab for them.

The problem is that the Sensenet is so realistic and so perfect that people can get lost inside. When life is too hard, a person can escape into the Sensenet to live in a fantasy world. The psychological draw is powerful.

One might think that this would mean entire races would become addicted (read: humans). However, with heightened technology comes heightened understanding. The ISC psyche programs have ensured that most people are relatively healthy, for their race at least. Most ISC citizens are monitored throughout their schooling. People exit public school with a fairly healthy grasp on things like this.

SENSENET PERSONALITIES

On rare occasions, a person is selected to be translated into virtual form after death. This only happens in the rarest cases, and is akin to winning the Nobel Peace Prize.

Virtual people are a little slower than their real world counterparts (unless their real world counterparts were about to slip into senility). They are plagued with none of the problems that AI's who log onto the nets experience. No one knows why. They can live out all eternity on the Sensenet, should they want to.

They can, by the way, access the Datanet as well.

Sensenet personalities must be built from models taken from a living brain (or within the first hour of death). The ones taken from a living mind are better than those taken from the dead, so when it is known a person will be immortalized in cyberspace, copies of their mind are taken on a monthly, weekly or even daily basis.

FAMOUS SENSENET PERSONALITIES

There are several Sensenet personalities that are well-known throughout the ISC. A short list is included below:

Chrrrl: It is not common for a falar to accept transfer into the Sensenet, but Chrrrl thought that this new technology was his shot at immortality. Transferred in 51 YC, Chrrrl was the falar who slew the ISC research crew that first made contact with the humans and oorts. Chrrrl attempted to assert his dominance on all falar, but he died before most falar worlds were geared-up. Ironically, it was his actions which caused the social upheaval that delayed most of the gear-ups. He roams the Sensenet in falar worlds, challenging the greatest warriors to duels.

Haroff Pharen: Transferred in 25 YC, this oort ambassador was famous for her resistance to gearing



up the falar. Even still, she was one of the foremost diplomats of her time. She was instrumental in forming InSpecCom, and when the falar were geared-up, she worked tirelessly to figure out the proper way to integrate them into the interstellar community. She usually haunts the House of Commons.

Oraphalus Phalluphum: Transferred in 490 PC, this oort is famous for heading the team that discovered the quantum drive. He is a brilliant and clever astrophysicist and engineer. He wanders the Sensenet now, exploring the multitude of worlds his invention helped connect.

Pharlupharem Arluph: Transferred in 150 PC, this oort is the founder of Arluph Arms and one of the more famous Sensenet personalities. He is a genius in business and high energy particle physics. He spends most of his time haunting Arluph Arms or the Institute for High Energy Physics on Warphalorum III, where he frequently advises and otherwise involves himself in research and business.

Rictin Caleisuss: Transferred in 53 YC, Caleisuss had a great deal to do with studying the xatosian and human psychic histories. He spent the later part of his life taking the knowledge gleamed from the xatosians and integrating it into human psychic abilities. Humans know as much as they do about the powers of the mind largely do to his efforts. He tends to haunt human Sensenets, as the xatosians do not spend enough time there.

Sir Tairen I: This great tulgaran warrior united the knighthoods into a cohesive whole. He is known as the father of the modern organization, and revered by all tulgar. Transferred in 41 YC Sir Tairen still haunts the Sensenets of the knighthood, advising and helping to train young knights. Earning a training session with Tairen I is a tremendous honor.

Talmage Jameson: Transferred in 63 YC, Jameson was the first president of the ISC. Known for his bold leadership and amazing charisma, this man built a nation out of a loose band of representatives. He took a scattered group of worlds and made them a unified whole. All school children learn to honor his name. Thanks to the Sensenet, most get to hear him speak. He spends most of his time lecturing on the Sensenet, wherever he is booked.

There are few kagoth, valiesian and xatosian personalities on the Sensenet. These races have no interest, as a whole, in being immortalized in this way.

CRIME ON THE SENSENET

The Sensenet is very safe. It's almost impossible to override another person's pain block to commit assault or rape. Murder is out of the question. The only crimes common on the Sensenet are nuisance/harassment crimes and cheats. For these offenses, most companies keep private security, hosts, moderators, or game masters online to handle the little blow ups that occur between human beings. Most punishments involve booting from a location or banning.

When the occasional real crime does occur, such as a serious hack or a real attack on another person through circumvented safeties, the BCI (Bureau of Criminal Investigation) intervenes. The BCI Agents investigate the crime, track the perpetrator in the real world, and arrest them.

THE DATANET

Also properly called the Data Net, this is the Internet of the future. It is an incredibly vast repository of knowledge, all accessible through direct neural interface. It includes encyclopedias, "phone" directories, public records, promotional data, personal home pages and much, much more.

The Datanet has sophisticated search utilities. This allows the search engines to make judgment calls. It can be told to search for home pages dedicated to the Sensenet show Armageddon and it will weed out biblical references, home pages with scant content, etc. This makes the Datanet an extremely powerful tool.

The Datanet is a free service. It is considered a public access utility and it is maintained with tax dollars. Anyone with a computer or datapad and within range of a node can access the Datanet. Smaller versions are located on ships and other remote areas like this, and searches will sometimes wait, pending, for the ship to link back up with the net.

All mail messages are channeled though the Datanet. These messages are allowed to propagate through the quantum comm net without extra charge, though this can take several hours if the journey is far and through high-traffic bottlenecked areas.

SPORTS

Sports are a popular form of recreation in the ISC. There are thousands of different games and can be dozens of different popular sports on a single world. Listed below are only the most Universal.

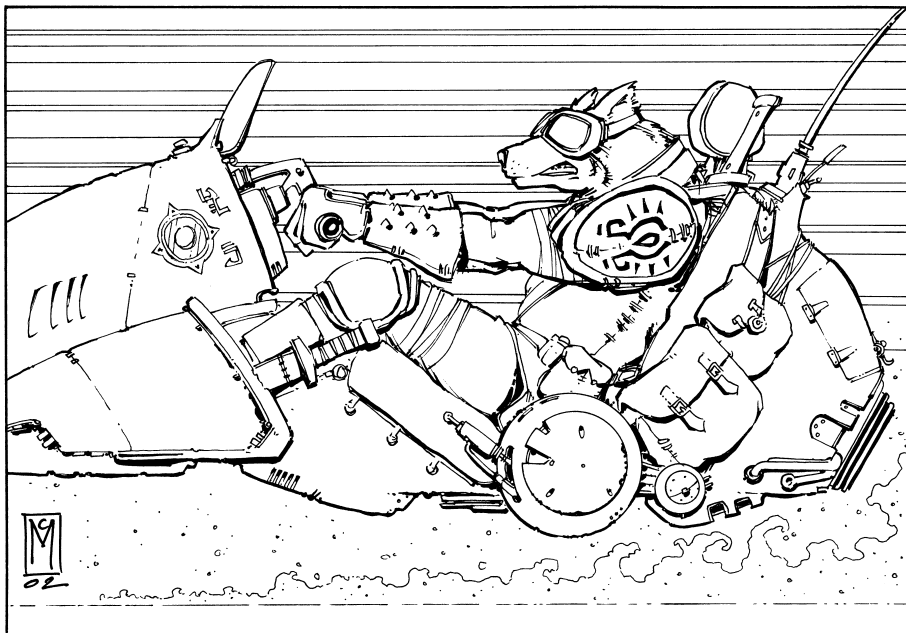
CONVENTIONAL SPORTS

Conventional sporting events involve skill, strength and dexterity and prioritize physical ability over mental (though tactics are almost always involved).

FIELD SLIDING

Field Sliding is a dangerous sport that involves gliding through chutes and open areas on anti-gravity fields. It is not a new sport, and was practiced on magnetic fields before anti-gravity was invented. The athlete with the fastest time wins.

Field sliding is much like the ancient winter sport of skeleton. The athlete lies on his belly with his head forward. Minute movements of their body control direction, so athletes that can't keep good form during high-g maneuvers can careen out of control and crash. In the chutes, the chute guides the athlete, more or less. In the open areas, though, an athlete can travel over one-hundred kilometers per hour and are aiming at the next chute, which is a hole less than two meters wide. Shattered bones and death are common in field sliding, and without proper headgear, the brains can be pulverized, making death permanent.



With proper protective gear and safety fields, however, the sport is safer. It can be played on most worlds as long as the world's safety laws are followed.

An extremely dangerous version of this sport is conducted with multiple athletes on the same track. In this version, there are multiple shoots on the first leg of the track. When the athletes exit the first leg into an open area, they must compete for position. The rest of the legs have only one chute. Jockeying to be the first into a chute is very dangerous, and only the most talented competitors pass inside a chute.

GLIDE DANCING

Where most of the sports involve strength, skill and agility, glide dancing involves pure finesse. In it, the artist usually performs to music. The floor of the arena is a field, much like with field sliding and the artist slides on the field like an ice skater. This sport greatly resembles figure skating of old, but his version is a step above figure skating because the artist can use any surface of his body.

Routines are done as singles or in pairs. This is a purely subjective sport that is judged by an impartial panel, and is therefore subject to controversy. Still, it is very popular.

PASS JACK

Pass Jack is a field sport played by two teams of eight. The sport revolves around an ephemeral sphere of light, referred to as "the ball." This object can be passed from team member to team member like a normal ball. It can only be caught or handled with a special glove. The ball carrier places the ball against his chest. It then merges with his body, causing him to glow.

The ball carrier can make the ball exit his body at any time. If he is tackled by the other team, the referee calls the game and the players line up with the ball in the hands of the other team.

The goal of the game is to run the ball into an end-zone. There are runners, blockers and strippers. Runners are the only ones allowed to advance the ball. Blockers try to stop the ball carrier or clear a path for the ball carrier. Strippers are the only players capable of taking a ball from the ball carrier without tackling him. Their gloves only need to touch the ball carrier to extract the ball.

Play is continuous and often brutal. Anyone can pass, but to move the ball toward the goal, a player needs to be a runner. The game is played in three eighteen-minute periods.

TRACK AND FIELD

Track and field events are still popular in the ISC. They haven't changed much in the intervening years. Sprints, long runs, hurdles and jumps are popular. Events are often segregated by race and sex.

Z-BALL

This game is played in zero-g. Two teams of six attempt to put a ball into a hole in either wall (called the hoop). The ball can be passed, thrown or intercepted, but the player holding the ball must stop when he hits a wall. He must then pass the ball before continuing. Players often use creative means, bouncing off other players and the like, to keep themselves moving in the direction of the hoop during play.

The game is played in four 12 minutes quarters.

MENTAL SPORTS

While some people like to watch or play physical sports, others are more interested in mental competitions. These can be anything from quiz shows to logic games. Most mental sports are divided into oort competitions and non-oort competitions.

QUIZ SHOWS

Quiz shows have always been popular. The modern era is no exception. Most quiz shows involve answering questions and trying to prove the more encyclopedic knowledge. Others test to see whether a person can solve scientific problems. Most quiz shows are played for money.

LOGIC CONTESTS

In a logic contest, the contestants must think their way out of a situation. This type of contest involves proper thinking more than straight knowledge. Unconventional thinking and reasoning are rewarded in these contests.

MYSTERIES

Not a sport as much as a form of recreation, most people who like mysteries like to participate in them solo. Most mysteries are murder mysteries (it's often best to stick with tradition). Most mysteries take place in Sensenet sims.

PSYCHOLOGICAL SPORTS

Psychological sports are many and varied. In a psychological sport, the contestants are trying to survive (and often apply) psychological pressure. Games where contestants must politic and vote each other out of the game are one form of psychological sport. Other sports involve high pressure situations such as locking a group of contestants in a small room under harsh and unpleasant conditions until they crack.

Psychological sports come in all shapes and sizes. There are few conventions, and individual sports often play out on the Sensenet for a season or two and then disappear.

PSYCHIC SPORTS

There are many psychic sports as well, although these have a very narrow audience (often just the contestants). These contestants compete in some sort of

battle of wills. Sometimes they will try to lift heavy objects. Other times, they fight psychically and the first one paralyzed or unconscious loses. In others, they try to raise or drop the temperature of a room.

Psychic sports have little appeal to those other than the contestants. They battles going on are often too subtle, too difficult to follow. Who can tell what is going on in a battle of the minds?

BLOOD SPORTS

Some of the most controversial of all sporting events, blood sports are very popular among the falar (and even the tulgar, in the case of duels of honor). Contests fight, with weapons or without, to the death. Only killing is allowed in a true blood sport. If quarter is asked for, none is given.

ISC law has to allow for races to conduct their cultural practices. This means that blood sports cannot be outlawed. To do so would be to purposely goad the falar and the tulgar into revolt (each for different reasons.) ISC law states that unless there is a legal issue involved, no blood sport may end in permanent death. Legal issues usually mean legal duels. On falar and tulgar worlds, this means that if one's honor has been challenged, it is permissible to kill them, if the duel is conducted legally. In the past, duelists had seconds. Now, the seconds are usually law enforcement officials.

Temporary death means that however the loser is killed, they must be able to be revived later. The ISC's medicine is very advanced. This means that anything short of direct brain damage can be fixed with relative ease. Even brain damage can be healed if it isn't too extreme, but this often results in diminished capacity.

This means that in any blood sport, both combatants must have their heads protected at all times. The weapons used must not be able to penetrate the head protection. Monoswords and the like are banned unless it is a death duel.

Beyond these laws, individual systems are allowed to make their own laws. In some systems, blood sports are made legal. On others, they are allowed, but heavy restrictions are placed on the type of weapons (and

hence the type of damage) that can be applied. For the most part, blood sports are illegal on most worlds. Falar worlds tend to make them legal without restriction. Tulgar worlds tend to legalize blood sports, but only to resolve duels of honor. Some human worlds legalize blood sports at various levels of restriction.

Most people in the ISC find blood sports distasteful. Still, the ISC is a nation of compromise and allowances were made.

In systems where blood sports are illegal, those who desire them have to rely on the Sensenet.

OTHER ACTIVITIES

There are activities that don't fall into any of the other categories. There are still people who do the gravchute equivalent of bungee jumping. Some people gamble. Others mountain climb or prefer to go biking.

Vacation activities are still popular as well. Despite the Sensenet, most people prefer to be at a place rather than simulate it. This means that cruises, site seeing and general travel are still popular among the beings of the ISC.

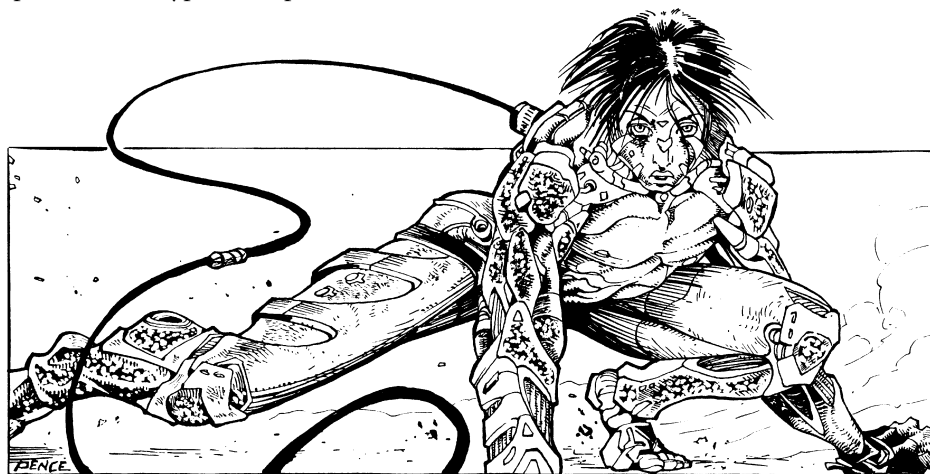
Hunting is still a popular activity, especially on falar and tulgar worlds. On these worlds, game reserves are carefully preserved. Some people prefer to hunt alone while others prefer to hunt in parties.

And of course, there is always prostitution. Prostitution is legalized or banned on a system-to-system basis.

THE ARTS AND LITERATURE

ISC art and literature is still as varied as the worlds with which it comes from. Paintings, literature and poetry (including tulgaran scent poems) are still popular. Plays, orchestras and operas are also popular. Sculpture, whether from wood, stone, clay or static fields are still popular as well. This doesn't rule out more modern forms either, such as tonal poetry, visual graphics, and mood altering light shows.

The ISC has a rich art culture. Writings and art from a over three hundred worlds, going back as long as history allows, are still appreciated by a trillion sapient beings (minus the valiesians).



BLACK MARKET TECH

The following data is hot off the most carefully concealed black market site. It is classified FOUO (For Office Use Only).

ILLEGAL SHIP GEAR

Come on kiddies....we knows how it is. You got stuff you need to move and you need to move it *now*. But the Big Eye is always watchin', always checking your ships, sniffing around the holds with its robohounds. We gots you covered kiddies.

MULTI-TRANSPONDER BEACONS

Hey, you gots your ship tripped out with racing stripes and a custom paint job. We know. Hell, you might have a flaming squirrel painted all up one side. We ain't here to judge, kiddies. Let me tell yous a secret. They never even *look* at your ship. Hell, most space-traffic systems don't even bother to scan your ship for its particulars. No, instead they bounce a signal off your ship and your baby responds with its ID. They don't bother to check with their own sensors. Honest. They don't think this is strange.

Our special transponder beacons have multiple identities and only an oort with a techscanner can tell the difference. We wouldn't recommend you actually putting out the wrong hull type or anything, but other than that, you can program this little beauty with up to ten different profiles. Use it to imitate a postal carrier, we don't care. Just get in and get out whole with a big ol' smoking pile of profit. Then spend it here.

Game Stats: *The Multi-Transponder beacon carries ten profiles. While it can't fool an actual scan of the ship, it is a must have for anyone who's ship operates outside the law. It can be activated and reprogrammed from any authorized ship consoles.*

Base Cost: 1,000.

SMUGGLING COMPARTMENTS

Now, kiddies, the Big Eye is gonna' try to keep you from buying one of these babies. They say that they are only good for smuggling illicit goods to the gods fearing people of the ISC. Well I say they are short sighted. My ship has ten of these babies and I only use them for hiding my mother's day presents. Can I help it if I have ten different mothers? My father's fickle.

Anyway, kiddies, each of these babies will hold four kiloliters of material. As for tonnage, that depends on your ship, but why you buying weapon-grade plutonium for momma anyway? Never mind. I don't wanna know.

Game Stats: *A standard smuggling compartment carries four kiloliters of goods. They are usually concealed in a wall or in the floor and sealed with a special genetic lock. Spotting one without*



scanning equipment requires and absurd Alertness or Observation maneuver. Finding one with a tech scanner requires a hard maneuver due to shielding.
Base Cost: 10,000.

HOUSEHOLD ITEMS

Why you wanna buy this stuff through me? Are you so hot on the nets that every bit of beat meat on the force is looking for you? Don't tell me you can't even order from the supermarket? Hell, maybe you just can't make your money look honest. Whatever. I've got you covered like a form-skin jumpsuit, kiddie.

READY TO EAT MEALS

What are you, from the damn Empire? You need me to tell you how to use a fork too?

Game Stats: *This is a single serving meal in a plastic-molded container. It comes with built in plastic eating utensils. Prepared by the greatest chefs willing to work for a megacorporation, these meals are almost entirely made of actual food stuffs. Peeling back the cover exposes them to air, triggering a chemical reaction that heats the food in seconds. Most every citizen in the ISC eats one of these for every meal.*

Base Cost: 1 (nicer meals can cost 10 or more).

DEPILATORY CREAM

I ain't your daddy. Ask him how to shave.

Game Stats: *This cream removes hair from the applied area almost instantly. In addition it deadens the follicles so that no hair will grow for a month (they could make it longer lasting, but the companies need repeat sales).*

Base Cost: 10 per 100 uses.

THIEVING GEAR

No no, kiddie, we get it. You locked your keys in your car. The DNA lock on your apartment won't let you in. You need to get your datapad back out of your ex's apartment. Don't worry, kiddie, we won't judge. In addition to the normal supply of bypass gear, we got two new beauties for sale.

MICROTHIN TOOLS

Yeah, kiddie, we get this question all the time. You have a faux skin patch and you want to carry something a little more useful next to your unmentionables. Well, we now have a complete series of tools, all of them made from flexible memory plastic. Strap these babies to your birthday suit and they will conform to your skin, bend when you do. Give them a firm snap and they become rigid. But be warned, if you need to apply some serious torque with these tools you'll need to wear special gloves, unless you're happy losing a few fingers. Even legitimate users will want these. Great for storage!

Game Stats: *These items grant a +50 bonus to any attempts to conceal them. Using one of these tools without the gloves in a situation that requires torque (such as a wrench) causes an E slash critical to the fingers.*

Base Cost for Simple Tools: x100 tool cost.

Base Cost for Complex Tools
(bypass kits, etc.): x1000

Protective Gloves: 100

SCENT NEUTRALIZER

What do you mean dogs? I'm worried about the damn tulgar and falar! Spread this stuff around your body, especially the stinky bits, and you'll smell a lot less like a person. Will it be enough? Hell, tricking a tulgar's nose is like trying to beat an old woman at bingo, it can be done, but I wouldn't bet my paycheck on it.

Game Stats: *A character using an application of scent neutralizer applies a -50 penalty to anyone attempting to locate them by smell and neutralizes the Acute Sense of Smell bonus to tracking.*

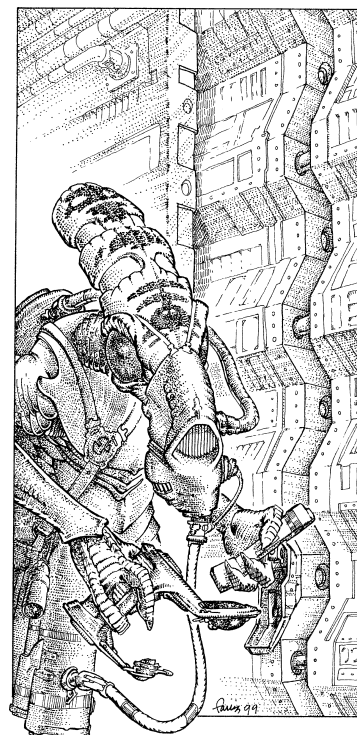
Base Cost: 100 per application.

LEGENDS OF THE ISC: THE MAD QUEEN

Everyone knows that xatosians avoid the Sensenet. They certainly never want to have their personalities immortalized for eternity. The xatosians say that this is because the copy lacks a soul. They say that on the Sensenet, they have no powers, and they are no better than the Mind Blind.

Others think that there is another reason.

They say that the first xatosian ever to be transferred permanently into the Sensenet was a queen of immense power. The process of cutting her off from the Sea of Minds drove her insane . . . quite insane. Now she roams the Sensenet, her powers recovered, killing at her whim. Whenever someone dies without any explanation while on the Sensenet, it is said that the Mad Queen got them.



RADIATION CRITICAL STRIKE TABLE

	A	B	C	D	E
01-05	What radiation? +0H	They're only sub-atomic particles. +0H	Nothing worse than a flight to Denver. +0H	He looks a little peeked. +0H	Luckiest man alive. +0H
06-10	A warm breeze. +0H	Zip. +0H	You must have a genetic resistance. +0H	This damage won't heal without anti-rad treatments. +3H	It must have been those cool sunglasses. +5H
11-15	The experts say it's nothing to worry about. +0H	Target has very little to worry about. +0H	Insignificant damage. +0H	Skin damage requires anti-rad treatments to heal +4H	Target's mustache falls out. +8H
16-20	That probably took a week off his life. +0H	Ah...you've had x-rays that were worse. +0H	Foe has a mild headache. (-1) +0H - (-10)	Mild irradiation. Foe won't feel himself again without anti-rad treatments. +0H - (-10)	Sickness persists until anti-rad treatments. +0H - (-10)
21-30	Has he been using a tanning bed? +0H	His little rad-badge is turning all black. +0H	Damage is permanent until foe receives anti-rad treatments. +4H	Foe will get cancer in the next 5 years. +0H	Horrible sores form, requiring anti-rad treatments. +10H - 6 - (-60)
31-40	Microbes on target's skin have a tough time of it. +0H	Foe is nauseous for 6 hours. +2H - (-5)	Mild radiation sickness. Hair falls out in three days. +0H - (-30)	Target's vision is messed up. Damage and vision persist until anti-rad treatment. +5H - (-30)	Severe damage. Foe weakened and ill until anti-rad treatment. +0H - 6 - (-70)
41-50	A few cells have their DNA shattered. They die before they mutate. +0H	12 hours of nausea. 50% chance of tumor within five years. +0H - (-10)	Target has 10% chance of fainting each minute. Then he is out for 1-10 hours, and sick for 5 days. +0H - (-20)	Organ damage. One of foe's organs will fail within d10 hours. +0H	Radiation sickens foe and drops MPs by d10. Anti-rad treatments are required. +15H - (-50)
51-55	In one hour target will feel queasy, it will last for four hours. +0H - (-10)	24 hours of intense nausea. +0H - (-15)	Mild radiation sickness. Hair falls out, sores develop in 1-5 days. 50% chance of cancer within a year. +0H - (-30)	Sickness weakens foe. This persists until anti-rad treatment. +0H - (-40)	Foe nearly unconscious until anti-rad treatments are administered. +17H
56-60	Target will feel unwell for about a week. +0H - (-10)	36 hours of nausea, lose d10 MPs for the duration. +0H - (-20)	Foe will develop cancer by year end. +0H	Damage and brief nausea are intense. Damage cannot be healed without anti-rad treatments. +20H - 6 - (-80)	Foe's skin cracked and blackened. Guess what sort of treatment he needs... +10H - 4 - (-80)
61-65	Foe starts vomiting after 6 hours, for about 3 hours. +0H - (-10)	48 hours of nausea. Intense headache lasts d10 hours. +0H - (-20)	Nice headache, got any aspirin? Lose 1-10 MPs. +0H - (-15)	Psychic powers may not be used for one day. Sickness lasts until anti-rad treatments are administered. +0H - (-20)	Damaged skin and optic nerve leaves foe bleeding and blind. Normal treatments will not heal this damage. +15H - 6 - (-50)
66	Foe will never produce offspring. His reproductive organs are very sterile. +0H - (+25)	Terrible cancer develops. Foe dies after two months. (+25)	Cancer causes death after one month. Sad. (+25)	Target will die in one hour due to massive organ damage. (+25)	Cellular and neural damage are extensive. Foe slips into a coma and will die in d10 minutes. +40H - (+25)
67-70	Minor loss of hand-eye coordination for the next 2 days. +0H - (-15)	Nausea and loss of hand-eye coordination for 72 hours. +0H - (-25)	Target's hand-eye coordination goes to hell. Condition persists until treated. +0H - (-30)	Target dazed. Sickness persists until anti-rad treatments. +0H - (-20)	Foe suffers all effects of radiation sickness. +0H - (-90)
71-75	Foe looks a bit green. He suffers a 12 hour bout of nausea after one hour. +0H - (-15)	Intense nausea for 4 days. Foe has trouble concentrating. +0H - (-25)	Sores appear until treated. +0H - (-30)	Radiation sickness. Hair, nails, and teeth fall out. Sores form within one day. Target loses d10 MP, and will die within d10 days. +10H - (-40)	Foe bed ridden until specially treated. The prognosis is bad. +30H - (-100)
76-80	Foe is nauseous for 12 hours. Minor skin cancer will develop within one year. +0H - (-15)	Nausea lasts 5 days. The dehydration and malnutrition are an issue. +4H - (-25)	Lingering radiation sickness. +0H - (-35)	Foe will get malignant tumor within 6 months. Sickness persists until restored. +0H - (-40)	Severe radiation sickness. Target will die within 24 hours unless treated. +12H - (-50) - (+25)
81-85	Nausea for 24 hours. There is a 50% chance of cancer within 5 years. +0H - (-20)	Six days of nausea. They might want to put him on an IV diet. +7H - (-25)	Damage won't heal without anti-rad treatments. +7H - (-30)	Damage to optic nerve leaves foe blind. All effects persist until anti-rad treatments are administered. +15H	After 10 minutes, foe is struck by severe nausea. This lasts for d10 days, then he dies. +0H - (-60)
86-90	Nausea for 36 hours. +0H - (-25)	Seven days of intense nausea, followed by complete hair loss. +0H - (-30)	Damage causes a random organ to cease functioning in d10 days. This can be treated normally. +0H	Cracked flesh and sores resist healing by all but anti-rad treatments. +17H - 3 - (-30)	Target blinded and sent into a coma. He will die within 24 hours. (+20)
91-95	Nausea for 48 hours. Damaged skin will flake off in two weeks. +4H - (-30)	Foe's skin cracks. The nausea lasts 8 days. His hair falls out to boot. He could use an IV. +0H - 6 - (-30)	Foe's vision is no longer quite right. +0H - (-40)	Foe blinded. He will die within one day unless treated. 10 - (-60) - (+20)	Horrible damage kills foe after 24 hours of intense nausea. +19H - (-70) - (+25)
96-99	Nausea for 72 hours. Damaged skin will flake off in two weeks. +5H - (-35)	Foe loses vision for d10 hours. Nausea lasts for 9 days. His hair falls out. He is not a happy camper. +0H - (-35)	Heavy radiation sickness persists until anti-radiation treatment is administered. +0H - (-40)	Neural damage. Foe slips into a coma and dies in d10 hours. (+20)	A variety of organs fail. Foe drops and dies in d10 rounds. No psychic abilities may be used without drastic neural procedures. (+20)
100	Extreme nausea for 96 hours. Damaged skin will flake off in two weeks. +10H - (-40) - (+20)	Foe will develop terminal cancer and die within 6 months. Nausea lasts 10 days and hair falls out. +0H - (-35) - (+20)	Heavy radiation sickness. Hair and teeth fall out. Foe dies of cancer after one month. +0H - (-45) - (+20)	Neural tissue ceases functioning. Foe dies in 6 rounds. (+20)	Massive neural failure. Foe slips into a coma and dies after 6 rounds. (+25)

Key: β×=must parry β rounds; β⊗=no parry for β rounds; β⊛=stunned for β rounds; β♣=bleed β hits per round; (-β)=foe has -β penalty; (+β)=attacker gets +β next round.